DOCUMENT RESUME

ED 366 083 EA 025 585

AUTHOR Wendel, Frederick C., Ed.
TITLE Reform in Administrator Preparation: Myths, Realities, and Proposals. UCEA Monograph Series.
INSTITUTION University Council for Educational Administration.
REPORT NO ISBN-1-55996-146-5; ISSN-1041-3502
PUB DATE 92
NOTE 70p.
AVAILABLE FROM University Council for Educational Administration, 212 Rackley Bldg., Pennsylvania State University, University Park, PA 16802-3200.
PUB TYPE Collected Works - General (020) -- Historical Materials (060) -- Information Analyses (070)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Administrator Education; *Educational Administration; Educational Philosophy; Elementary Secondary Education; Information Management; *Information Technology; Internship Programs; Models; Organizational Climate; Professional Education

ABSTRACT

This handbook is comprised of four chapters that examine the history and reform of educational administration. Chapter 1, "The Mythology of Reform in Educational Administrator Preparation: Antecedents of Paradigms Lost," by Thomas Wiggins, examines myths in educational administration and problems with traditional paradigms. Chapter 2, "Beyond the Administrative Internship: A Proposal for the 1990s," by Robert G. Owens and Carl R. Steinhoff, examines issues involved in changing the traditional internship model from one that is based on the medical-education model to a model of professional education. In chapter 3, "Administrator Preparation Programs: Levels of Discourse," Paul A. Pohland develops an analytical framework to examine alternatives to administrator preparation programs presented in "Approaches to Administrative Training in Education" (Murphy and Hallinger, 1987). The final chapter, "Exploring the Effects of Computer-Mediated Work on Educational Organizations," by Muriel Mackett, Frederick Frank, and Peter Abrams, explores the implications of technological intervention and the effects of computer-mediated work environments on the field of educational administration. References accompany each chapter. (LMI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

REFORM IN ADMINISTRATOR PREPARATION: MYTHS, REALITIES AND PROPOSALS

ED 366 083

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
P. Forsyth

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

BEST COPY AVAILABLE

EA 025 585

MONOGRAPH SERIES
UNIVERSITY COUNCIL FOR
EDUCATIONAL ADMINISTRATION

uc ea

2

REFORM IN ADMINISTRATOR PREPARATION : MYTHS, REALITIES AND PROPOSALS

UCEA MONOGRAPH SERIES

Edited by
Frederick C. Wendel

The University Council for Educational Administration
212 Rackley Building
University Park, PA 16802-3200

ISSN: 1041-3505-2
ISBN: 1-55996-146-5

Copyright © 1992 by UCEA, Inc.

All rights reserved. No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or any other information storage and retrieval system, without permission in writing from the publisher.

CONTENTS

Chapter 1.....4
The Mythology of Reform in Educational Administrator Preparation: Antecedents of Paradigms Lost
Thomas Wiggins

Chapter 2.....13
Beyond the Administrative Internship: A Proposal for the 1990s
Robert G. Owens and Carl R. Steinhoff

Chapter 3.....29
Administrator Preparation Programs: Levels of Discourse
Paul A. Pohland

Chapter 4.....53
Exploring the Effects of Computer-Mediated Work on Educational Organizations
Muriel Mackett, Frederick Frank, and Peter Abrams

CHAPTER 1

The Mythology of Reform in Educational Administrator Preparation: Antecedents of Paradigms Lost

Thomas Wiggins

Two assumptions have persisted in the study of educational administration: (a) that a body of knowledge exists which is foundational to well-being in life in organizations and (b) if students of administration are able to understand and master this knowledge, they will act on it to maximize the potential of the organizations in which they reside. This promise of, or claim for, a science of administration presumes that goal-directed human action is subject to a set of natural laws, and when these laws are known they benefit educational progress. Thus, knowledge about educational administration has been based upon faith in a science of administration. Has this "science" emerged? This constitutes an epistemological question which one confronts in examining reform in administrator preparation (Culbertson, 1981).

Common themes and a compulsion for repetition characterize the history of administrator preparation. Previous to the 1960s the field experienced the "apprenticeship of folklore" or administration as a craft era so aptly described by Coladarci and Getzels, Griffiths, Halpin and other founding fathers of what became known as the "New Movement." The social scientists of the "New Movement" set out to infuse science as the foundation of educational administration much like physicians might use their knowledge to address the problem of curing cancer. Has science failed us? Apparently, at least a hint of some loss of faith in science is implied in the Commission report, *Leaders for America's Schools* (Griffiths, Stout and Forsyth, 1988). Redefinition and reformation are frequently used

descriptors in the report. "Oughtness" is suggested in a call for needed definitions of "good" leadership. . . a move toward the realization of an early warning of Griffiths that science is in and of itself ethically neutral. How can we teach and learn about educational administration as an ethically neutral field of endeavor?

The Indictment

The promise of a science of administration has never been fulfilled, and research in the field has made little contribution to the practice of administration. These are serious indictments. The spectacle of failure to proclaim any fundamental laws of administration, critical insights, or even much more than trivial and subjective findings must be resolved. These indictments are not new. Halpin (1966) described the professoriate in educational administration as an arena for superintendents who have chosen the professorship as a form of early retirement. Instruction was by anecdote . . . the "war stories" of experience. Professors of educational administration have been frequently empowered with a great wealth of experience to pass on to unknowing novices. Haskew (1964) suggested that instruction was based upon the folklore of authoritative opinion. . normative practice masquerading as knowledge. Charters (1977) recalled sifting through hundreds of contributions to research in educational administration to find that the vast majority revealed little or no significant empirical evidence of anything new. . .incestuous reproductions representing a general lack of progress in the generation of knowledge about educational administration.

The "New Movement" of the 1950s and 1960s represented an effort to inject contemporary social science and its commonly accepted theoretical foundations and quantitatively complex methodology into administrative practice with, in some cases, some rather bold assumptions about its generalizability. For example, there has been a preoccupation with apparently influenced by the somewhat worn notion of the "Great Man" interpretation of human events. Administrative behavior characterized as leadership was apparently thought to be the means to explain and profess the qualitative accomplishments of administrators and the internal states of successful educational enterprises. These notions of leadership still pervade educational administration as an elixir which heals and potentiates even the very leanest of our educational enterprises. Leadership is still viewed and postulated without any compelling theoretical evidence as the causal link in the chain of events, which result in student outcomes, proximal variables such as teacher behavior, and even distal variation such as school funding. Even after the Center for Creative Leadership (McCall

& Lombardo, 1978) raised the question "where else can we go?" culminating in a conference on the topic of leadership, there remains a strong tendency to cling to this construct as our raft in the turmoil of the contemporary sea of a "nation at risk."

The New Movement Falters

The "New Movement" persisted and progressed in its assumed efficacy during the 1960s, 1970s and into the 1980s. For all of the demonstrations of the failures of educational administrative research to advance knowledge and concomitant practice, the idea of theory as a guide to practical action has persisted. Faith in the scholarly community to theory-based research remains virtually unshaken. Halpin raised doubt about the value and validity of administrative theory in 1970 in "Administrative Theory: The Fumbled Torch" (1970a) as his view of the field began to shift from hope and fervor to iconoclastic condemnation. Thus, with the advent of the 1980s there began a withdrawal from, and a shrinking faith in, administrative theory and its concomitant research. Now the apostles of the "New Movement" and their followers are beginning to confess their sins of commission. Their confessions juxtapose the failure of a theoretical basis for administrative practice against the hope for a renaissance of an apprenticeship framed in a new rhetoric of terms like "clinical practice," "craft basis," or "reflective practice."

A Myth of Progress

A myth of progress characterizes the educational enterprise. History is portrayed in schools as a series of progressive events providing a sense of self-awarded respite from concern for the essence of the critical problems related to human progress. The myth provides a pacification to avoid reconsiderations of assumed cherished truths confirmed in the conventions of human enterprises. The conventions and traditions of educational administration have persisted. Few, if any, fundamental differences exist in the manner in which educational administration is practiced today compared to 1950. The illusion of progress in administrative practice has been repeatedly exposed (Wiggins, 1970, 1978; Ginsberg, 1988) during the last few decades. Evidence of a translation to practice of the science of administration and administrative theory is minimal at best. Hoy and Miskel (1982) related skepticism about theory and the possibility that educational administration is incapable of becoming a science. Greenfield (1988, pp. 131-132) addressed the failure of the theory movement in "The Decline and Fall of Science in Educational Administration."

> The study of educational administration is cast in a narrow mould. Its appeal stems from a science of administration whose experts claim that an objective view of the social world enables them to conduct value-free inquiry. They claim to possess knowledge that enables them to control organizations and to improve them. But such large claims appear increasingly unsound, for the science that justifies them rest on methods and assumptions that dismiss the central realities of administration as irrelevant. Those realities are values in human action. If administrative science deals with them at all, it does so only in a weakened or spuriously objective form. For this reason, scholars in educational administration are now called to consider whether their way forward is still to be defined, as it has been for a generation or more, by a single path called "the way of science." The alternative path would seek to understand administrative realities within a broader conception of science—a conception recognizing that values bespeak the human condition and serve as springs to action both in everyday life and in administration. But values are subjective realities, and people bind them inextricably to the facts in their worlds. Thus, an adequate new science may no longer be content to split facts from values, and deal only with the facts.

Greenfield (1988) concluded his argument with a plea for a new science of administration. . . a new science with values and of values. Is the field of educational administration so indebted to a logical positivistic commitment that it cannot at least temporarily depart from its traditions and conventions to look elsewhere? Must the field of educational administration continue to reify if not deify its identification with science? Saul Bellow warns in his Foreword to Bloom's, *The Closing of the American Mind* (1987) that freedom necessitates the responsibility to investigate without restriction. Bloom presents an unparalleled reflection on the cloistered, restricted, and antiprogressive abuse in which this responsibility to investigate without restriction is encapsulated. "The true believer is the real danger. The point is not to correct the mistakes and really be right; rather it is not to think you are right at all" (Bloom, pp. 25-26).

Injustice to Creative Divergence

Halpin (1966, 1970b) was an early iconoclastic, satirical critic of the field of educational administration. He was read widely, rarely applauded, entertained audiences, but generally ignored except for his conventional, mainstream work (Halpin, 1970b). Others have followed, presenting avenues of provocation, requiring new potential domains of influence upon the field of educational administration and generally daring to tickle imaginations: Iannoccone (1972) addressed the irresponsibility gap between policy, planning, and administration; Bates (1983) perceived the mythology and morality in educational administration; Greenfield (1980, 1985, 1988) reflected upon meaning, issues related to knowing, and a

divergent research agenda for educational administration; Willower (1985) related educational administration to its philosophical foundation; Culbertson (1983) persisted in reminders of the relevance of epistemological issues related to educational administration; and Popper (1985) revealed pathways to the study o educational administration through the humanities. Again, as with Halpin, their works are read with interest and some awe. Although the boldness of their divergence and the eloquence of their rhetoric are admired, little attention is paid to any implications their work may have for the concerns of reform in administrator preparation. Fear of creative divergence creates an environment of myopic fixation upon established traditions. Mitroff (1978) related a relevant anecdote:

> A guy goes into a psychiatrist's office, and he is absolutely convinced that he is dead. His problem is that he cannot convince anybody else in the world. So the psychiatrist works with this fellow for months, and, unlike a real psychiatrist, he gets exasperated and says, "Hey, look. If I can prove to you that you aren't dead, will you accept this?" And the guy says, "Yes." The psychiatrist picks up a pin and says, "You don't make dead men bleed, do you?" And the guy says, "No, dead men don't bleed." So he pricks the guy, and blood comes out. The guy looks at it and says, "Well, I'll be damned. Dead men do bleed." (p. 139)

Mitroff used this anecdote to illustrate a tendency to cling obsessively to a one world view—one to explain everything. In that sense, professors are prisoners of the "dead men bleed" phenomenon and have difficulty in stepping out of an orienting world view long enough to glance at the creative divergence which occasionally slips into the literature.

How shall I talk of the sea to the frog, if he has never left his pond? (*Chuang-Tsu, 4th Century*).

Surviving the Turmoil

The potentialities of the Commission report on *Leaders for American Schools* (Griffiths, 1988) rest with its capacity to inspire breaking away from a compulsion to engage in some disguised form of reproduction of the familiar. Much of the "chromosomes of our past progeny" is in Section I of *Leaders for American Schools* (1988), that is, there is little presented that one could claim as new or innovative. Did Darwin warn that inbreeding will often result in reduced size, lessened fecundity, and the ultimate reduced ability of stock to survive? Let us survive! Let us dare to begin to explore what Griffiths (1979) described as the "turmoil" in the field of educational administration. What about values, philosophy, phenomenology, linguistics . . . ? Perhaps the central questions in educational administration are not scientific at all (Hodgkinson, 1978).

We seem mesmerized by words. The language of educational administration has evolved into much standardization. Perhaps we should challenge eclecticism and dialecticism in search of alternative conceptual schemes for describing "turmoil." Styles of inquiry which stress consensus have a way of converging upon local rather than global optimums. Even worse, maybe we are repetitiously discovering the correct solutions to other wrong problems . . . what Mitroff (1978) refers to as "Type III error." To avoid Type III error we must be more critical in our diagnoses of problems and how problems change as we vary the paradigms used in the diagnosis. This necessitates systematically confronting and challenging existing paradigms, shifting paradigms, and reassessing paradigms lost.

Finally, the conceptual bases for the study of educational administration have been derived largely from the empirical edification of nationalistic educational traditions. Even though concerns have been, broadly speaking, based on social behavioral science models, these models are fundamentally empirically oriented and, thus, subject to the indictment of cultural myopia. The very use of the world "model" apparently pacifies some into a state of justification of the exportation of our parochial common sense elaborated in our empirically-based theories. This could be in part due to inflated theorizing being treated as though it was established doctrine. The assumption of cultural generalizability even further extends the fallacy.

The acquisition and dissemination of knowledge about educational administration are inextricably interwoven into the fabric of the culture. Thus, knowledge is associated with the values of the culture it represents. Failure to recognize this has yielded a body of knowledge about administration which is viewed as imperialistic. This image can no longer be tolerated in a modern world where collaboration is imperative. The assumption of the generalizability of knowledge across cultural boundaries is both morally and ethically wrong and scientifically primitive. There is a cultural context in administrative theory (Sanders & Wiggins, 1985), and it must be considered in the emerging world community.

The confrontations of issues related to contexts are frightening. Challenges put forth by Kuhn (1970) appear and reappear as specters to haunt and bedevil us. Science has been destined to be our guardian and protector of objectivity. Rigorous and diligent application of traditional scientific methods was intended to generate a body of accumulated knowledge generalizable across all human boundaries. Now, we are beginning to question this destiny. Where has all of this taken us?

A crisis of confidence has infected educational administration and the traditions of administrative training. The large body of research is context

specific/dependent. Perceived, legitimate generalizations are increasingly under scrutiny. The contextual dependency of research traditions is at least as disabling as historical dependence upon logical positivistic methodologies. New ways to investigate problems, e.g., "imaginative beholding," must be sought (see Popper, 1985, pp. 64-68). By continuing to indulge in the esoteric "science of administration" in conventional methods of investigation, modes of mystification are perpetuated and translation into practice is difficult, at best.

Science is neither a cure nor a palliative to expedite the transmission of practical knowledge about educational administration. Kuhn (1970) advised long ago that usable knowledge is accumulated through revolution against existing orderliness and orthodoxy. The anomalies have apparently appeared, and we have responded. The Commission has made its recommendations. Let us proceed with the revolution and objectively observe its impact upon the "turmoil" and reform in administrator preparation.

REFERENCES

Bates, R. J. (1983). Morale and motivation: Myth and morality in educational administration. *Educational Administrative Review, 3*(1).

Bloom, A. (1987). *The closing of the American mind.* New York: Simon & Schuster.

Charters, W. W. (1977). The future (and a bit of the past) of research and theory. In L. L. Cunningham, et al. (Eds.), *Educational administration: The developing decades.* Berkeley: McCutchan.

Culbertson, J. A. (1981). Three epistemologies and the study of educational administration. *UCEA Review, 22*(1).

Culbertson, J. A. (1983). Theory in educational administration: Echoes from critical thinkers. *Educational Researcher, 12*(10).

Ginsberg, R. (1988). Worthy goad . . . unlikely reality: The principal as instructional leader. *NASSP Bulletin, 72*(507).

Greenfield, T. B. (1980). The man who comes back through the door in the wall: Discovering self, discovering organization. *Educational Administrative Quarterly, 16*(3).

Greenfield, T. B. (1985). *Putting meaning back in theory: The search for lost values and the disappeared individual.* Paper presented to the Conference of the Canadian Society for the Study of Education, Montreal.

Greenfield, T. B. (1988). The decline and fall of science on educational administration. In D. Griffiths, et al. (Eds.), *Leaders for America's schools.* Berkeley: McCutchan.

Griffiths, D. (1979). Intellectual turmoil in educational administration. *Educational Administrative Quarterly, 15*(3).

Griffiths, D. E., Stout, R. T., & Forsyth, P. B. (Eds.). (1988). *Leaders for America's schools.* Berkeley: McCutchan.

Halpin, A. (1966). *Theory and research in administration.* New York: Macmillan.

Halpin, A. (1970a). Administrative theory: The fumbled torch. In A. M. Kroll (Ed.), *Issues in American education.* New York: Oxford University Press.

Halpin, A. (Ed.). (1970b). *Administrative theory in education.* New York: Macmillan.

Haskew, L. D. (1964). A project appraisal. In D. Griffiths (Ed.), *Behavioral science and educational administration.* Chicago: NSSE.

Hodgkinson, C. (1978). The failure of organizational and administrative theory. *McGill Journal of Education, 12*(3).

Hoy, W. & Miskel, C. (1982). *Educational administration theory, research and practice.* New York: Random House.

Iannaccone, L. (1972). Increasing irresponsibility in education: A growing gap between policy planning and operational groups. In M. Kirst (Ed.), *State, school and politics.* Lexington: D. C. Heath.

Kuhn, T. (1970). *The structure of scientific revolutions.* Chicago: University of Chicago Press.

McCall, M. W., & Lombardo, M. M. (1978). *Leadership: Where else can we go?* Durham, NC: Duke University Press.

Mitroff, I. (1978). Systematic problem solving. In M. W. McCall & M. M. Lombardo (Eds.), *Leadership: Where else can we go?* Durham, NC: Duke University Press.

Popper, S. H. (1985). *Pathways to the humanities in educational administration.* Tempe, AZ: University Council for Educational Administration.

Sanders, B., & Wiggins, T. (1985). Cultural context of administrative theory: In consideration of a multidimensional paradigm. *Educational Administration Quarterly, 21*(1).

Wiggins, T. (1970). Why our urban schools are leaderless. *Education and Urban Society, 2*(2).

Wiggins, T. (1978). The illusion of leadership in education. *College Student Journal, 12*(4).

Willower, D. (1985). Philosophy and the study of educational administration. *Journal of Educational Administration, 23*(1).

Chapter 2

Beyond the Administrative Internship: A Proposal for the 1990s

Robert G. Owens and
Carl R. Steinhoff

Consider the meaning of the term, *clinical experience*: It refers to the teaching of students about the diseases of patients as those patients are examined in their sickbeds. Metaphors, such as this, are rhetorical devices that facilitate "imaginization,"—that is the ability to think about, understand, and diagnose organizations (Morgan, 1986). In pursuing the clinical metaphor organizations are imagined as rational, logical, and dealing with patients and the application of "scientific" cures.

Metaphors, such as "clinical experience" are not merely devices for communication of ideas: They are instrumental in shaping how we think about those ideas. Just as there are many metaphors, so there are many ways to "imaginize," or think about programs that prepare people to be leaders of educational organizations. Beginning soon after World War II, a generation of young academic leaders in educational administration—scholars and researchers—demanded new ways of thinking about such things and the outcome was, of course, the "theory movement."

The post-World War II "theory movement" to reform university programs for the professional preparation of educational administrators was built upon a logical-positivist model, which sought to provide an ". . . antidote for the self-serving testimonials, the pseudo-theories of Mort and Sears, and the plain nonsense that constituted the field of educational administration [prior to that time]" (Griffiths, 1985).

The Model: Medical Education

The model was medical education, the genesis of which had become manifest earlier in the century in the recommendations in the report by Abraham Flexner that laid down the principles that have, for decades, undergirded the modern medical research center, with its medical school and its teaching hospital. Here was a solid base of fundamental science, and a profession which had geared itself to implement the products of research (Schön, 1988).

Beginning about 1945—accompanying the surging trend for greater academic rigor in such programs—the internship emerged as a means of linking the academic, theoretical studies of graduate students to the realities of administrative practice in the "real world" of schools and school districts. Universities backed away from hiring ex-school administrators for their faculties in educational administration and increasingly sought to employ theorists, sociologists, political scientists, and other academicians. The quality of academic programs in educational administration has been judged, at least in part, by how closely programs appeared to be linked to the practicing profession in schools and school districts. While prior to World War II universities generally sought to achieve this linkage by employing shrewd, successful practitioners (usually ex-superintendents of schools) to teach fledgling students the tricks of the trade as they were practiced in the "real world," after World War II they shifted to using part-time internships to achieve the linkage.

In the internship, students supposedly would learn to integrate "theoretical" knowledge acquired from course work with the "practical" knowledge demanded by the "real world." This integration was to be achieved by shaping the internship as a clinical experience, a concept borrowed from the seminal work of Flexner.

Flexner had been asked to examine the education of medical doctors. At that time, the practice of medicine and medical education were in a state of great confusion—not unlike teacher education and administrative studies in the 1980s. After a long and careful study, Flexner produced a set of recommendations that were to revolutionize medical education. Students of medicine would first learn the theoretical and academic aspects of their field in classrooms and laboratories at the university and then would engage in closely-monitored clinical practice (internships) before they were certified to practice medicine.

Educational administration, hoping to achieve some of medicine's lustre and prestige in the academic and professional world, sought to emulate its linkage of research and teaching, its hierarchy of research and teaching roles, and its system for connecting research to practice. The very language

used in the effort, rich in references to measurement, quasi-experimental and statistical methods, applied science, and clinical experience was striking in its reverence for the medical model.

Fundamental Flaws in Applying the Model

This model, which today stands as the traditional model in educational administration, rests upon logical, positivistic assumptions about schools as organizations and about ways of understanding them and assumes that there is some rational, logical, systematic order underlying the organizational realities of schools that must be discovered. The means of discovery, it was assumed, must be the approach to inquiry that emphasizes measurement, sampling, quasi-experimental methods, and quantification. Moreover, these assumptions and these methods of discovery were viewed as being the ineluctable path to improving the training of educational practitioners. "The road to generalized knowledge can lie only in tough-minded scientific research, not introspection and subjective experience" (Hoy & Miskel, 1982, p. 82).

The pervasive discrepancy between the academician's view of the world and that of the practitioner explains the predictable lack of enthusiasm that practitioners chronically express toward the preparation that they have received at the university (Heller, Conway & Jacobson, 1988). There are, for example, striking differences between academic literature on the principalship and written reflections of principals on their own practice (Barth & Deal, 1982):

- Principals describe concrete everyday experiences while academics emphasize theory and abstract concepts;
- Principals communicate through metaphors, examples, and stories while academics use models and the language of science;
- Principals are aware of limits on rationality while academics stress rationality and defining problems in formal terms;
- Principals describe schools in human and emotional terms wherein people agonize over and celebrate their daily ups and downs while academics describe them in terms of detached abstraction;
- Principals see schools as ambiguous and even chaotic while academ ics describe an image of rationality and orderliness.

Mintzberg-type studies. Mintzberg's research documented the nature of administrative work, showing it to be a far cry from the planned, orderly, systematic activity that students of administration generally hold up as ideal. In a study of five executives, one of whom was a superintendent of schools, Mintzberg found that their work was voluminous, largely unplanned, highly verbal, dealing with many brief contacts in the course of the day, largely reactive, and an admixture of important and trivial matters haphazardly encountered (Mintzberg, 1973).

A number of studies have examined the on-the-job behavior of school superintendents and principals (Morris, Crowson, Hurwitz & Porter-Gehrie, 1981; Pitner, 1978, 1982; Peterson, 1978; Kmetz & Willower, 1982; Martin & Willower, 1981). They comprise a small but growing body of literature that increasingly supports the notion that working in the administrator's world is a far different thing than academics have heretofore envisioned.

How Administrators Think

Recent research suggests that a source of confusion in the minds of scholars who study organizations and the behavior of administrators in them may be that academic people and administrators tend to think about administrative work in different ways. Academics, when observing administrators at work, expect to see administrators behave in much the same way that they, themselves, do: that is, ". . . .engaged in long reflective episodes during which managers sit alone, away from the action, trying to make logical inferences from facts. Since observers do not see many episodes that look like this, they conclude that managers do not do much thinking" (Weick, 1983).

But why do researchers report so few occasions in which administrators are observed cogitating, mulling over a problem, considering alternatives in the dispassionate calm of quiet retreat? Weick suspects that managers think all the time but researchers have missed that fact because while the researcher looks for episodes of reflective thinking, managers go at the thinking process quite differently. That is, thinking is woven into and occurs simultaneously with managerial and administrative action. Thus, when administrators tour the building, read, talk, supervise, and meet with others, all of those actions contain thought and, indeed, they *are* the ways in which administrators do their thinking.

While Weick's concepts have largely been ignored in educational administration, Schön's notions about the ways in which professionals think have received some attention. Like Weick, Schön readily accepts the fact that administrative work is done in messy, ambiguous environments

and that the demands for action are incessant. At the same time he suggests that in professional education, ways must be developed to inculcate the skills and values that lead professionals to make sense of uncertainty, confusion, and "managing messes" (Schön, 1983). The process, Schön contends, leads professionals to develop the ability and inclination to derive meaning from experience through reflecting upon, questioning, and searching for the meaning of that experience. Schön encourages administrators to develop those processes and habits of reflective thought that are frequently observed to be absent in administrative practice. Sergiovanni and others (1983) have speculated on possible application of this concept to educational administration.

Thus there is a glaring discrepancy between two metaphors of schools: the metaphor used by those who work in them and the metaphor used by those who study them. These two metaphors are not merely two different ways of talking about the same thing. They are different ways of perceiving, conceptualizing, and making sense of—"imaginizing"—the context in which educational administrators work. They lead to a very different understanding of the nature of educational administration itself and the realities of what administrative work is.

This discrepancy between the metaphor of the academic and the metaphor of the practitioner has led to serious problems in applying the medical model of professional education to the preparation of educational administrators. While the medical model has consistently been advocated for use in educational administration, it has rarely been implemented in practice in university programs of graduate study in educational administration. The model in use in most programs of educational administration is that of traditional academic Ph.D. programs commonly found in the arts and sciences disciplines. Thus, in the language of Argyris and Schön (1974), though our theory of practice tends to be analogous to the medical professional model, our theory in use is actually the traditional arts and sciences academic model.

Unlike the model of medical education which it sought to emulate, educational administration has established the traditional standards and procedures for the academic doctoral degree as the primary and highest-priority criteria for university programs of graduate study. Emphasis on such entrance requirements as scores on the Graduate Record Examination and grade point averages, the use of academic examinations as hurdles along the path of the program of study, and the traditional academic research of the doctoral dissertation have become well-established as the critical criteria for excellence of university programs of preparation in educational administration.

These criteria are fueled by the demand by universities for academic research and evidence that programs reflect traditional academic criteria of

quality. This demand has not only driven faculty to turn away from attending closely to the practice of administration so as to embrace academic research and publication; it has impelled programs of study in educational administration to ape the standards and practices of doctoral study in traditional arts and sciences disciplines. Anyone who has evaluated university doctoral programs in educational administration is struck by the efforts of committees of faculty members to establish and enforce upon students adherence to the traditional forms and canons of academic research that faculties in other academic departments use to judge the adequacy of the work done in PhD programs. Though some may still refer to the EdD as the "practitioner's degree," neither the program nor the dissertation of EdD students can be differentiated from that of PhD students.

The so-called clinical experience, more commonly spoken of as the internship, places a distant second in the order of things in programs of study and is commonly experienced by students as far less rigorous and demanding than their dissertation research and even their examinations. Moreover, in pondering decisions regarding tenure and promotion of faculty, universities tend to give scant credence to clinical/internship activities while giving great weight to publishing research and, to some extent, to teaching and dissertation supervision. Indeed, internships are often supervised by either specially-designated faculty who do not have strong academic aspirations or by adjunct faculty whose academic prestige is ordinarily scant.

The application of the medical model is less than exact: Medical students learn to practice medicine and are judged on the basis of how well they do that under supervision, whereas educational administration students learn to do research and are evaluated on the basis of how well they do that under supervision. Thus, in university departments of educational administration, the culture and traditional standards and practices of the academic arts and science disciplines prevail.

Other Differences Between the Medical Model and Educational Administration

There are a number of other major differences between the clinical aspects of the medical model and the so-called "clinical component" of university programs in educational administration that make it unlikely that the medical model can become a useful metaphor.

1. Cost. The traditional pattern of financing of university programs in educational administration is not merely different from that of medical education, but it is so different that it does not permit implementation of clinical practice as it is understood in the medical context. The credit-driven budget, perhaps appropriate for most academic departments, simply does not provide the funds to mount significant internship programs.

2. *Supervision.* Exclusionary practices on the part of both the public schools and universities have made implementation of the notion of the clinical professor to supervise internships virtually impossible. Most people who join a university faculty automatically forfeit their right to practice administration in the public schools. Upon joining the university, even experienced administrative practitioners are considered to have left that profession and joined another. As long as they are professors they are permitted to enter the schools only as guests—paid or otherwise—and at the sufferance of those who control the schools.

Moreover, as departments of educational administration have struggled to survive by increasing their efforts to gain academic respectability within the university itself, the numbers of the faculty members with significant experience in administrative practice has dwindled. One result has been that universities have increasingly turned to adjunct faculty and volunteer practitioners for a clinical staff whose sole involvement in the university program often is to provide some veneer of supervision for the clinical experience that the program requires.

3. *The difficulty of getting good internships: The connection between university and school districts.* A series of interlocking problems have largely scotched the long-held dream of close cooperation between the university and the school district in the quest for the development of meaningful clinical components in the preparation of educational administrators. Not the least of these has been the difficulties of financing such ventures. School districts, chronically short of money, simply cannot undertake serious efforts to contribute to the training of future administrators. Academic departments, operating on credit-driven budgets cannot assign the faculty lines to provide appropriate supervision of clinical components of their programs.

4. *Certification.* Controlled by the state, dominated by a public policy supporting easy entry into educational administration, and having controlled university programs themselves, state certification requirements have gone far in firmly establishing the minimums in administrative preparation. Among these minimums is the notion that—unlike medicine—preparation for entry into the profession should be a part-time activity and, therefore, students should not be burdened with the requirement that they devote a significant block of time to supervised application of their training in a systematic on-the-job internship. Rarely do minimum state certification requirements call for anything like a serious clinical experience. Given the general state of impoverishment of school districts, there is a Gresham's Law at work in which minimum requirements drive out higher-quality preparation in the job marketplace.

5. *Promoting from within: Parochialism.* In contrast to educational administration, the medical profession appears to be remarkably cosmo-

politan (Gouldner, 1957; 1958) in outlook, strongly emphasizing the values and customs of the profession itself as primary, the belief in and loyalty to the individual organization as secondary. On the other hand, in a well-established pattern, school administrators are strongly local in outlook and their careers are typically place-bound. They select institutions of higher education for their administrative studies largely on the basis of geographic proximity (rather than on the basis of their prestige), and tend not to move very far away (March, 1978). For their part, school districts are loathe to recruit outsiders for administrative jobs, preferring instead to tap trusted members already on the staff who are thought to be "reliable." Thus, in large measure universities prepare locals for local upward mobility. Altogether, these patterns exert strong pressure on both individuals and the university to emphasize fitting students into the local culture with considerable display of loyalty and conformity. They do not strongly support an effort to establish clinical experiences that might challenge local customs.

These circumstances, in the context of contemporary criticism of existing university programs of preparation for educational administration such as one finds in *The Report of the National Commission on Excellence in Educational Administration* (National Commission of Excellence in Educational Administration, 1987) and *School Leadership Preparation* of the American Association of Colleges for Teacher Education (Shibles, 1988), compels a rethinking of the present approach to the clinical component.

Beyond the Internship in Educational Administration

University programs of educational administration need to design an alternative to the traditional mix of classroom work, internship, and dissertation. This proposal pivots on the proposition that the first order of business of university programs for the preparation of educational administrators is to prepare administrative practitioners, rather than scholars who work as administrative practitioners. It also takes into consideration the vocational realities of administrative work.

In doctoral programs for the preparation of educational administrators, the requirement for a traditional dissertation should be dropped in favor of a professional position paper which should form a major part of the internship. The professional position paper should be developed in a field setting in which the student demonstrates the ability to identify and define a significant problem in professional practice, design and carry out an analysis of the problem using systematic research and evaluation methods and techniques, and derive recommendations for policy and administrative action from the analysis.

There is a need to redeploy existing faculty personnel to supervise and monitor these changes. Faculty who heretofore spent time supervising traditional dissertation research and doing the committee work necessary for the traditional approach to academic dissertation work should be reassigned to work closely in the field with interns and in collaboration with their clinical professors both in supervising the internship itself, and, more particularly, the development, completion, and defense of the professional position paper.

Even university faculty members who themselves do not have direct educational administration experience can be effectively involved in the redesigned internship by bringing their conceptual and analytic skills to bear on the professional problems and issues being confronted by interns. Whereas traditional practice has been that supervision of research occurs in the quiet sanctum of the university campus, the concept would become one in which professors go into the field to work with students in the environment of the administrative practitioner. University faculty members should also engage in the processes of reflective practice (Schön, 1987) and apply the concept of their own work.

Conclusion

The major change—to shift from the traditional academic model of the arts and sciences to a model of professional education—is fundamental, and difficult to bring about in view of the dominant academic culture in which university programs for the preparation of educational administrators are embedded. It is a change with which university programs for the preparation and certification of educational administrators have temporized for nearly a half-century and which now—in view of mounting pressures for better results—must be faced.

Develop a professional model. Educational administration has tried to emulate the medical model of professional education but with scant success and with little likelihood of success in the near future. The liberal arts and sciences model is unsuited to the educational challenges that we now face. Therefore, the present notion of an internship patched onto the traditional PhD program must be abandoned and a bold new model of professional education uniquely suited to the educational demands of professional practice in educational administration must be developed.

Separate programs in administration from the traditions of the liberal arts. If universities are to bring about the kinds of improvement in the preparation of educational administrators that are being called for by such reform-minded critics as the AACTE, schools and colleges of education must make a bold and clean break from the traditions of academic programs

in the arts and sciences disciplines. Graduate programs in schools and colleges of education must be freed from the traditional academic norms and practices that are ordinarily held by deans of graduate studies in the arts and sciences and the academic committee systems over which they preside.

Create a professional school environment. Deans of education must provide leadership in redirecting the norms of graduate study in educational administration from the conventional norms of the liberal arts and sciences to the norms of professional education. This may require some structural adjustment within a university: Perhaps more independent status for the school or college of education must be sought, much as is generally the case for schools of professional practice in medicine, law, architecture, and other professional fields.

Emphasize education for professional practice. Departments of educational administration should encourage, and their universities reward, efforts by faculty to conduct systematic inquiry into problems of practice as well as policy. Individuals seeking to pursue traditional academic careers while leaving to others the messy business of working closely with students in the field should be discouraged from joining departments of educational administration.

New leadership roles for UCEA. There are major critical roles for UCEA in communicating to central actors—from deans of education to committees on graduate academic standards to university presidents—what the issues are and ways in which they may be resolved. To do that requires not only communication, but first coordinating effort in defining the issues and identifying the options available to universities in dealing with them.

The challenge goes far beyond the scope of departments of educational administration: Schools and colleges for teacher education must, themselves, be involved in the effort to break the traditional academic chains that have bound doctoral programs in educational administration to the standards and practices of the PhD in conventional academic departments. AACTE, fortunately, is concerned about this problem, too, for the leadership of schools and colleges of education is essential in creating a new concept of doctoral studies and the internship in educational administration. UCEA can and should play a major role by encouraging exploration of the concept, stimulating discussion and consideration of it, and encouraging research in this area.

But universities are not the only ones who will be involved in this change. One can hardly expect junior faculty members to vigorously engage with their students in applying their analytical, conceptual, and methodological skills to systematic field studies of issues of practice until, and unless, they can expect their work to be taken as serious contributions to the scholarly literature of the field. In short, scholarly journals in educational admin-

istration can and should play a powerful leadership role in fostering and rewarding the efforts of faculty to apply their social and behavioral scientific knowledge to problems of practice. While, for over a quarter-century, the more respected journals in educational administration have striven to mimic their counterparts in the traditional arts and sciences disciplines with some success, their very success has helped to isolate practical field experience—the internship—from the mainstream scholarly thought with which faculty on campus are engaged. A concentrated effort must be made to persuade journals in educational administration to recognize and give credence to the value of research and research methods focused on the pressing problems that confront practicing administrators. UCEA can and should play a major leadership role in reconsidering the norms of scholarship and research which should undergird scholarly publications in the field.

A major role for deans of education. The involvement of schools and colleges of education must be more than merely supportive of initiatives from the department of educational administration: Schools and colleges must take the lead in bringing about such a fundamental change which is sure to be misunderstood and firmly resisted in academic circles. AACTE must do more than describe and deplore present practices (Shibles, 1988); deans of education must be in the vanguard, unflinching in the inevitable struggle that will ensue when a serious effort is made to break graduate programs of study in educational administration away from the traditional practices of the arts and sciences. Such an effort will certainly be once again construed by traditional academicians in the arts and sciences as a threat to academic standards and the quality of the university, and it will surely fail without very strong support from the leadership of the schools and colleges of education.

As an essential part of their support, deans of education and other leaders in the university must provide strong leadership in getting the university to accept the involvement of faculty in field research related to the internship as bone fide, credible, and worthy of reward in consideration of tenure and promotion. Without that, efforts to change the clinical component of programs of educational administration will once again be mere window dressing.

Finally, a return to metaphors that began this paper. The metaphors that graduate study in educational administration drew from the medical model—clinical experience and the internship—have proven to be unworkable and do not aptly describe what most programs in educational administration are about. We need to develop a new model of professional study for educational administrators with a fresh approach to the integrating practice into the model. This calls for a new metaphor that is more expressive of what the field experience really is or should be.

Further Thoughts

One of the fundamental problems commonly overlooked in developing effective programs of educational administration is the extraordinary socialization of educational administration students. Because our thinking on this is not fully developed at this point, and we realize that we are speculating a bit, we put these comments as an afterword to our main argument.

A fundamental flaw in the application of the medical model to educational administration lies in failure to recognize essential differences between the educational needs of students of medicine and students of educational administration. The differences are numerous and significant.

Consider, for example, the often-discussed concept that medical education rests to a large extent on well-developed theoretical paradigms arising from evidence acquired in controlled clinical experimental research whereas the knowledge base that undergirds educational administration is much less certain. An obvious case in point is the germ theory of infection, which leads to the inclusion of instruction and clinical practice in aseptic and antiseptic principles and procedures in medical education. This contrasts remarkably with the absence of either a single over-arching theory of educational administration or a well-developed coherent educational technology that can be used to inform practice through systematic, theoretical, and clinical instruction, either at the university or in the environment of administrative practice.

Further, unlike medicine, educational administration is moving increasingly away from positivistic methods and concepts in research methodology and toward the increased use of qualitative/naturalistic methods (Griffiths, 1988). Thus, the precise linkages between theory and practice that seemed plausible in the early years of the "theory movement" will continue to elude us for some time to come. The positivistic approaches that used to be so in vogue are now seen to have limitations and these, in turn, require the inclusion of a broader spectrum of ways of informing practice.

But the educational needs of medical students and students of educational administration differ in another, and more crucial, way and this difference is usually overlooked. Medical students are engaged in the process of entering a profession that is new to them, in which they are naive, and that is practiced in an organizational environment that is virtually unknown to them because much of that environment is hidden from the eyes of outsiders. An important function of the lengthy and intensive medical internship is to socialize students to the underlying culture of the profession and its institutions: Its basic beliefs, values, commitments, and ways of doing things.

Students of educational administration, on the other hand, have vastly different problems and prospects in shifting from the teaching profession to administrative practice. They come to university programs in educational administration as already undoubtedly highly socialized professionals: They have typically entered school at the age of five or six years, liked schools, experienced success in them, and with a few exceptions (such as a hiatus for military service or child rearing) have remained in schools virtually continually for 25 to 35 years or more. Indeed, the compensation plan of many school districts assures that teachers and administrators continue on as students even as they are professionals, pursuing courses at the university commonly demanded as qualification for salary increments and the maintenance of licensure. Students of educational administration, as Lortie observed about teachers in general, have served a long "apprenticeship of observation" (Lortie, 1975). One result of this extraordinary socialization is that students in educational administration approach their studies with extensive knowledge about the organizations in which they will work. They are relatively mature students when they undertake their studies in administration, with clearly formed and strongly held commitment to their understanding of the culture, meaning, and purposes of school organizations. On the other hand, these same students have little experience or knowledge of other organizations in the world—such as business and industrial organizations—and bring to their studies well-developed endogenous views of schools that have proven intractable to reform-minded university professors.

A supervised internship in non-school organizations such as business and industrial corporations and government service agencies should be considered to reduce the isolation of the study of educational administration from enlightened mainstream American thought and practice and to expand the direct experience of administrative students in organizational life to include more than only school experience. As long as preparation for school administration is part-time, internships in corporate environments could be done during summer months and provide a potentially fruitful basis for collaboration between businesses and industries and universities. Many corporations are deeply involved in sophisticated human resources management activities, as well as more traditional teaching efforts, which would present rich opportunities for broadening the understanding of students of contemporary practice.

Supervision of non-school internships should be a collaborative undertaking of faculty and corporate people. They would, therefore, require financial commitment from the partner corporations as well as modification of the traditional credit-driven arrangements of typical university budgets. This action alone would make a great and timely difference in the capabili-

ties of administration students to think about and make sense of their educational organizations in more sophisticated and critical ways. Though the entry of people into educational administration who have no grounding in the business of schools, namely teaching, should be opposed schools would be immeasurably enriched if their leaders had significantly broader, more diverse organizational background than they now have.

REFERENCES

Argyris, C., & Schön, D. A. (1974). *Theory in practice: Increasing professional effectiveness.* San Francisco: Jossey-Bass.

Barth, R. S., & Deal, T. E. (1982). *The effective principal: A research summary.* Reston, VA: National Association of Secondary School Principals.

Gouldner, A. W. (1957, December). Cosmopolitans and locals: Toward an analysis of latent social roles. *Administrative Science Quarterly,* 281-306.

Gouldner, A. W. (1958, March). Cosmopolitans and locals: Toward an analysis of latent social roles. *Administrative Science Quarterly,* 440-480.

Griffiths, D. E. (1985). Theories: Past, present and future. In *Administrative theory in transition.* Victoria, Australia: Deakin University.

Griffiths, D. E. (1988). The professorship revisited. In D. E. Griffiths, R. T. Stout, & P. B. Forsyth (Eds.), *Leaders for America's schools* (p. 281). Berkeley, CA: McCutchan.

Heller, R. W., Conway, J. A., & Jacobson, S. L. (1988, September). Here's your blunt critique of administrator preparation. *The Executive Educator,* 18-30.

Hoy, W. K., & Miskel, C.G. (1982). *Educational administration* (2nd ed.). New York: Random House.

Kmetz, J. T., & Willower, D.J. (1982). Elementary school principal's work behavior. *Educational Administration Quarterly,*18, 62-78.

Lortie, D.C. (1975). *School teacher.* Chicago: University of Chicago Press.

March, J. G. (1978). American public school administration: A short analysis. *School Review,* 86, 217-250.

Martin, W. J., & Willower, D. J. (1981). The managerial behavior of high school principals. *Educational Administration Quarterly*, 17, 69-90.

Mintzberg, J. (1973). *The nature of managerial work*. New York: Harper & Row.

Morgan, G. (1986). *Images of organization*. Newbury Park, CA: Sage.

Morris, V. C., Crowson, R. L., Hurwitz, E., Jr. & Porter-Gehrie, C. (1981). *The urban principal: Discretionary decision-making in a large educational organization*. Unpublished manuscript, University of Illinois at Chicago.

Morris, V. C., Crowson, R. L., Hurwitz, E., Jr., & Porter-Gehrie, C. (1984). *Principals in action: The reality of managing schools*. Columbus, OH: Charles E. Merrill.

National Commission of Excellence in Educational Administration (1987). *Leaders for America's schools*. Tempe, AZ: University Council for Educational Administration.

Peterson, K. D. (1977-1978). The principal's task. *Administrator's Notebook*, 26, 1-4.

Pitner, J. J. (1978). Descriptive study of the everyday activities of suburban school superintendents. Unpublished doctoral dissertation. The Ohio State University, Columbus, OH.

Pitner, N. J. (1982). *Training of the school administrator: State of the art*. Eugene, OR: Center for Educational Policy and Management, Univeristy of Oregon.

Shibles, M. R. (1988). *School leadership preparation: A preface for action*. Washington, DC: American Association of Colleges for Teacher Education.

Schon, D.A. (1983). leadership as reflection in action. In T.T. Sergiovanni & J. E. Corbally (Eds.), *Leadership and organizational culture*. Urbana-Champaign: University of Illinois Press.

Schon, D. A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Schon, D. A. (1988). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Sergiovanni, T.T., & Corbally, J.E., (Eds.). (1983). *Leadership and organizational culture*. Urbana-Champaign: University of Illinois Press.

Weick, K.E. (1983). Managerial thought in the context of action. In S. Srivastrva (ed.), *The executive mind* (pp. 221-242). San Francisco: Jossey-Bass.

Chapter 3

Administrator Preparation Programs: Levels of Discourse

Paul A. Pohland

A spirit of heady optimism pervades the field of educational administration—a spirit conceived in the reaffirmation of administrator efficacy (Pitner, 1988; Bossert, 1988) and born in the ecstasy of "the new theory movement" (Murphy & Hallinger, 1987). That movement is characterized by its spokesmen as having reached "consensus regarding the inadequacies of the past" (Murphy & Hallinger, p. xiii), as having "re-conceptualized the training of school administrators" (p. 16), as having rejected the "One Best Model" (p. 33), as shifting "away from the intellectual paradigm borrowed from social psychology, management, and the behavioral sciences" (p. 258) and as having adopted a "craft framework" (p. 259). Moreover, claims are made that the multiple training programs generated as alternatives to the "One Best Model" tread common ground in program content, processes, assumptions, principles, and foci (pp. 257-258).

The literature of "the new theory movement" is exciting, prosaic, iconoclastic, insightful, and, best of all, new. As Astley (1985) observes, "Old paradigms fall from grace not because they are wrong but because they are boring" (p. 504). He also reminds us, however, that:

> The new theories are not always improvements over the old in terms of predictive power; they primarily represent differing frameworks of understanding. The world is seen anew, but not necessarily with greater accuracy (p. 499).

Purpose

The purpose of this paper is to examine the claims identified in the introduction. A "framework for analysis" will be developed in Part I. In Part II the framework will be applied to the alternatives presented in *Approaches*

to Administrative Training in Education (Murphy & Hallinger, 1987; hereafter, *Approaches*). This work has been selected on the basis of its recency, availability, and the authors' claim that its contents "reflect the varying forms which the emergence movement has taken" (p. xiii). Part III will speculate on the difficulties inherent in generating alternatives to administrative training in education.

I. A Framework for Analysis

The analytic framework which follows has three dimensions or levels: the descriptive, the conceptual, and the philosophical. These levels move hierarchically from the concrete to the abstract. More importantly from a "purist's" stance, these three levels are closely related, that is, the ontological, epistemological, and axiological presuppositions, embedded in the philosophical base of a program, provide a "logic of justification" (Firestone, 1987, p. 16) for the concepts articulated at the conceptual level and its operations as specified in the descriptive. Thus the major focus of Part I will be upon the philosophic level.

The Descriptive Level

At the descriptive level attention is focused upon the objective elements of a program. Journalistically, these are the who, what, when, where, and how of program and design, execution, and outcome. One can expect detailed accounts of who was involved—participants, staff, support personnel, sponsoring agencies, and so forth; the criteria for participant selection; and the specification of a program's objectives, its content, its delivery system, and its instructional processes. In addition, information should be provided on the where and when of program delivery and upon the program outcomes. Descriptive discourse can be assessed by the canons of comprehensibility, specificity, and reliability. Ultimately, the test of the adequacy of the descriptive account is replicability, that is, the program can be instituted (installed) elsewhere given the description provided.

In sum, the purpose of discourse at the descriptive level is expository. As Stake (1967) observed in the context of program evaluation:

> The purpose of educational evaluation is expository: to acquaint the audience with the workings of certain educators and their learners . . . . A *full* evaluation results in a story, supported perhaps by statistics and profiles. It tells what happened. It reveals perceptions and judgments that different groups and individuals hold—obtained, I hope, by objective means. It tells of merit and shortcoming. As a bonus, it may offer generalizations ("The moral of the story is . . .") for the guidance of subsequent educational programs (p. 5).

Finally, consideration of the "whys" of program design, content, processes, and so forth are not included in the discourse at the descriptive level. While this may seem a somewhat arbitrary exclusion, questions of why are more adequately analyzed at the conceptual level of discourse.

The Conceptual Level

At the conceptual level of discourse, theoretical grounding is the focus, and inquiry is undertaken into the conceptual basis (bases) of proposed program. One wishes to know, for example, what the conceptual basis (bases) of a program is (are); the rationale for choice of concepts; the source or sources of concepts, whether derived from formal theory, middle range theory, or grounded theory; or whether derived from empirical research, professional knowledge, individual experience, or intuition. Similarly, inquiry focuses upon the relative explicitness/implicitness of concepts-in-use, their relative clarity, and if multiple, their organization into larger conceptual frameworks. Finally, the "logic of justification" requires inquiry at the conceptual level into the degree of articulation between a program's conceptual base and its actualization as presented in the descriptive narrative.

The Philosophical Level

Analysis of discourse at the philosophical level is crucial in establishing the claims for paradigm revolution. Fortunately, frameworks already exist for determining the philosophical bases of training programs. One set derives from the philosophy of science with specific reference to paradigms of educational research; a second is derived from the study organizations (Burrell & Morgan, 1979), and a third from the conception of "applied science" (Sergiovanni, 1985). Each will be addressed in turn.

Philosophy of science frameworks. The paradigms of educational research have received substantial scrutiny (McKay, 1988; Firestone, 1987; Smith & Heshusius, 1986; Soltis, 1984; Smith, 1983). Paradigms "describe different philosophical and epistemological orientations towards the world" (McKay, p. 358). Depending upon the author, either two or three fundamental "orientations" exist. Smith (1983), for example, classifies orientations as realist (positivist, quantitativist, empiricist) and idealist (phenomenologist, qualitativist, constructivist). Further, according to Smith, these orientations vary systematically (and incompatibly) along multiple dimensions. Four are critical, namely:

	Realism	*Idealism*
Reality	Social phenomena have an independent, objective reality analogous to phenomena in the physical world	Social phenomena are subjective, mind-dependent social constructions non-analogous to phenomena in the physical world
Knowledge and truth	Empirically determined via rules of correspondence; truth singular	Consessually determined within historically bound contexts; truth multiple
Value Stance	Detached; neutral; separation of is and ought	Involved; passionate; man as moral actor acting on basis of values and interests
Goals	Explanation; prediction; control;	Understanding (*"Verstehen"*)

Magoon (1977) adds a fifth discriminating dimension which is only inferentially present in Smith's analysis. He argues that in constructivist perspectives, human beings first "must at a minimum be considered knowing beings, and that this knowledge they possess has important consequences for how behavior and action are interpreted" (p. 652), and second, that "the locus of control over much so-called intelligent behavior resides initially within the subjects themselves. . ." (p. 652). These assumptions are consistent with those of the symbolic interactionists who hold that human beings are active constructionists of their reality rather than simply reactors to "social forces" which impinge upon them (Blumer, 1962).

Three-fold research orientations have also been proposed. Soltis (1984) classifies them as empirical, interpretive, and normative-critical. Aoki (cited in McKay, 1988, p. 358) presents a similar conceptual division:

> *Empirical-analytic inquiry*—seeking technical and explanatory knowledge (e.g., behavior theory, systems theory, cybernetics, structural functionalism);
>
> *Situational-interpretive inquiry*—seeking meaningful description and interpretation of human activity (e.g., phenomenology, sociology of knowledge, ethnomethodology, linguistic analysis, hermeneutics);
>
> *Critical-reflective inquiry*—seeking to uncover the taken-for-granted assumptions of human activity (e.g., critical theory, critical social theory, psychoanalysis).

Frameworks for philosophical analysis have also been developed by social scientists. Miklos (1986), for example, has taken the four paradig-

matic perspectives articulated by Burrell and Morgan (1979)—functionalist, interpretive, radical structuralist, and radical humanist—and elaborated upon them as concept of organizations, concept of administration, practice knowledge base, and educational implications. His conceptualization is presented in Figure 1.

The third set of frameworks in philosophic analysis are those which focus directly upon the conception of educational administration. As Cooper and Boyd (1987) and Tyack and Hansot (1982) have pointed out, multiple conceptions have emerged over time. Moreover, each conception has been accompanied by a logically compatible conception of administrator training.

Of particular interest is the conception of administration as applied social science and the administrator as applied social scientist. This is the most prevalent conception and that which undergirds the program proposed in *Leaders for America's Schools* (National Commission on Excellence in Educational Administration, 1987).

Both Schön (1983, 1987) and Sergiovanni (1985) provide purchase on the concept of "applied social science." For Schön, applied social science is analogous to professional knowledge, and professional knowledge based on "technical rationality" is "an epistemology of practice derived from positivist philosophy" (1987, p. 3). Thus the curriculum for professional practice is founded upon the premise that "practitioners are instrumental problem solvers who select technical means best suited to particular purposes" (p. 3).

Moreover, a positivist epistemology of practice is based on three dichotomies—the separation of means from ends, the separation of research from practice, and the separation of knowing from doing (Schön, 1983, p. 78). Consequently, problem solving becomes a "technical procedure" assessed by canons of effectiveness in achieving predetermined ends; professional practice is reduced to the application of theories and techniques derived from scientific research; and action is but "an implementation and a test of technical decision" (p. 78). Logically, then, training for professional practice is anchored in the belief that "practical competence becomes professional when its instrumental problem solving is grounded in systematic, preferably scientific knowledge" (p. 8).

In contrast to the "objectivism" of the positivist, Schön (1987) posits the "subjectivism" of the constructionist. In the constructionists' world, "perceptions, appreciations, and beliefs are rooted in worlds of our own making that we come to *accept* ad reality" (p. 36, emphasis in original). Thus, the professional, "through countless acts of attention and inattention, naming, sense making, boundary setting, and control" (p. 36) makes and maintains a world consistent with professional knowledge and skill. Professional competence, then, is determined by the practit-ioner's "feel for materials, on-the-spot judgments, and improvisations—the forms of his or her reflection-in-action" (pp. 222-223).

Sergiovanni (1985) makes essentially the same case as Schön (1983) in his analysis of the concept of applied science. "Applied science," he writes, "flows from basic sciences as embodied in key underlying disciplines. . . . and [it] uses this scientific knowledge to build practice models and standard practice treatments" (p. 10). Sergiovanni's schema for depicting this flow is as follows:

> Creation of knowledge through research
> to build models of practice
> from which prescriptions are generated
> to be communicated to professionals
> for use in practice. (p. 11)

Thus, with Schön and Sergiovanni the conceptual grounding for philosophic analysis comes full circle—from philosophy of science, to paradigms of research, to paradigms of social science, to conceptions of educational administration, and back to philosophy of science.

To summarize, a framework for program analysis has been proposed. Within this framework three levels of discourse have been identified—the descriptive, the conceptual, and the philosophic. The analytic framework with key sensitizing questions is presented in Figure 2.

Figure 2. A Framework for Program Analysis

Level of Discourse	*Key Questions (Samples)*
Descriptive	What is the content of the program? How is the content organized? What processes are utilized in teaching? In learning? Who are the participants? The staff? How are they selected? How is the program evaluated? With what results? What is the cost? How adequate is the descriptive account? Could the program as described be transported and implemented elsewhere?
Conceptual	What is (are) the conceptual basis (bases) of the program? What is the rationale for the conceptual basis (bases) chosen? Is (are) the conceptual basis (bases) explicit? Clear? Consistent? Coherent? From whence are the concepts derived? Research? Experience? Professional knowledge? What is the level of abstraction? How is the conceptual base actualized in the program?
Philosophic	What are the ontological, axiological, and epistemological assumptions, explicit or implicit, which undergird the program? What are the underlying assumptions regarding organizations, administration, and the goals of the enterprise? What are the basic assumptions regarding knowledge and the epistemology of practice?

II. Utilizing the Framework

Consistent with the "logic of justification" stance taken in Part I, the examination of alternative approaches to administrative training will focus primarily upon the philosophic level with brief, initial consideration of the descriptive and conceptual levels of discourse.

The Descriptive Level

Four generalizations can be made about discourse on alternatives at the descriptive level. First, the bulk of the discourse in Parts II, III, and IV of *Approaches* is at the descriptive level and perhaps intentionally so. LaPlant (1987), for example, writes, "The chapter will describe the development, implementation, and assessment of that [I/D/E/A Principals' Collegial Support Groups] program" (p. 182). Similarly, Walker (1987) writes, "It is description of this [syndicate] method which largely constitutes the thrust of this chapter" (p. 231).

Second, the descriptive narratives are uneven; that is, different program elements are given different emphases by different authors. For example: Sanders (1987) and Moyle and Andrews (1987) politically and historically contextualize their accounts to a greater degree than others; LaPlant (1987) accents outcomes data; Barnett (1987) details the research and development basis of PAL; Levine (1987) et al., highlight "center operation;" while the flow of program delivery is emphasized by Duke (1987).

The third generalization is that implementation of any of the alternatives proposed on the basis of the descriptions provided would be very difficult; however, there is no reason to believe that any account in *Approaches* was written for export.

Finally, what is omitted in an account is frequently as significant as what is included as none of the alternatives presented are accompanied by cost data, and some of the programs are manifestly expensive. Thus, fiscal feasibility joins fullness as a criterion of descriptive adequacy, particularly for potential adopters.

The Conceptual Level

Generalizations about discourse at the descriptive level have their counterparts at the conceptual level. The fundamental generalization is that all of the approaches advanced are grounded conceptually, but enormous variability exists along the dimensions suggested in the framework for analysis.

Initially, conceptual variability manifests itself in the language system used. Terms like "assumptions," "principles," "developmental concepts," "theoretical underpinnings," "rationale," "ideas for consideration," and "key premises" are sprinkled liberally within the text. Moreover, they appear to be used interchangeably, that is, they have little or no conceptual differentiation.

Second, conceptual bases vary. The concept of "equity" looms large in Sanders' (1987) MPDA model as does "organizational socialization" in Duke's (1987) description of the Lewis and Clark Summer Institute. More evident, as Murphy and Hallinger (1987) point out, is conceptual grounding in andragogy and the literature on school effectiveness and instructional leadership.

Thirdly and relatedly, conceptual sources vary. Peterson (1987) is explicit in describing the Vanderbilt program as "research-based and theoretically driven" (p. 213); APEX is grounded in an experiential framework; the AASA model is derived largely, if inferentially, from accumulated professional knowledge; and Walker's (1987) "syndicate method" appears to be derived from classical management theory. Grier and La Plant (1987) are largely silent on the matter of conceptual source.

Fourth, discourse at the conceptual level varies with regard to the care with which the authors elucidate the connections between rationale and conceptual base and between conceptual base and processes employed. Silver's (1987) discourse in this regard is exemplary.

The last variation in discourse at the conceptual level is the various authors' attempts to structure larger conceptual frameworks (models) from the individual concepts in use. Only three such conceptualizations appear in the eleven alternatives described in *Approaches*. And enormous variation appears in conceptual complexity and predictiveness among these three: Sanders' MPDA (1987, p. 109); Grier's for the North Carolina Leadership Institute for Principals (1987, p. 121); and Barnett's for the Peer-Assisted Leadership Program (1987, p. 134).

The Philosophic Level

Claims have been made to the effect that a "new theory movement" has emerged in educational administration, a movement which has reconceptualized administration training, rejected the "One Best Mode," and has shifted away from "the intellectual paradigm borrowed from social psychology, management, and the behavioral sciences" (Murphy & Hallinger, 1987)—manifestly positivist and structuralist—and has moved toward a "craft frame work." Second, the validity of those claims is best assessed through philosophic analysis, that is, through an examination of

the assumptions, "orientations," and beliefs. Consequently, rather than making generalizations about the eleven alternatives proposed in *Approaches*, as was done analytically at the descriptive and conceptual levels, each of the proposals will be examined independently.

APEX (Silver, 1987, pp. 67-82)

APEX is not an administrator training program but an effort to generate a professional knowledge base. As Silver writes, "Its [APEX's] aim is to generate information that is directly applicable to real situations in the real world of practice" (p. 77). Such information is generated by practicing administrators from their personal experiences and made public in the form of case records. The APEX Center is concerned with advocacy of this form of knowledge generation, dissemination of case records, and "minimal" (p. 77) direct administrator training. "What is probably clear at this point is that the core values underlying the APEX Center approach is the *self*-development on the part of the principals that occurs as a result of becoming more and more reflective and analytic in practice" (Silver, p. 74).

One could rightly infer that APEX embodies an interpretive, constructivist, idealist orientation. The knowledge base generated is clearly personal and reflects sense-making and problem framing. APEX is in the spirit of Schön's (1983) reflection-in-action, and principals as knowledge generators are actively engaged in the shaping of and giving meaning to their worlds. All of this locates Silver in "the new theory movement" as described. But does it? Other statements cast doubt upon the foregoing conclusion. For example:

> They [Center staff] seek . . . to identify "standard practices" as well as "exemplary practices" in the resolution of situations commonly encountered. (p. 73)
>
> For each *profession as a whole*, the availability of case records enables the field to develop a complete typology of problems encountered in practice . . . to discover which action strategies work and under what conditions and with what probability of success, to identify the important factors to be taken into consideration, and to discover which types of problems are most in need of further research. (p. 69)
>
> It is believed that the thoughtful use of case records will result in courses of administrative action that are more efficient and effective in the long run . . . . (p. 75)

These quotations reflect a functionalist orientation more in keeping with the tenets of technical rationality than knowing-in-action. Problematic situations [Schön's (1987) "instrumental problems"] come fully formed.

"Standard practice," established means-ends chains in Miklos' (1986) language system, replaces problem framing and sense making; criteria of efficiency and effectiveness apply.

In brief, Silver's approach contains elements of both positivist and idealist philosophy, a mix of functionalist and interpretive orientations. To use Murphy and Hallinger's (1987) language, APEX shows "movement away from a social science paradigm and toward a craft framework" (p. 259) but it has not arrived.

The AASA Model (Hoyle, 1987, pp. 83-95)

The AASA Model has been critiqued by Cooper and Boyd (1987) as "The Better One Best Model" and as standing firmly "in the rational, 'scientific,' controlled world" (p. 17). In the language system of philosophic analysis proposed in this paper, the AASA model is positivist, structuralist, and applied social science oriented. Schools are clearly perceived as definable structures with universalistic characteristics shaped by external and internal forces. Consequently, the model accentuates skill develop (competencies) to deal with instrumental problems (cf Section One: Leadership Outcome Goals, pp. 87-88). Such a perspective in Schön's (1987) view leads to a means oriented outlook—an outlook consistent with a focus on mastery of predefined competencies.

The functionalist applied science orientations of the AASA Model are also manifested in the knowledge base invoked for training. The AASA Model is in the established tradition, with emphases upon: (a) administrative, organizational, political, and learning theory; (b) technical areas of administrative practice; (c) behavioral and social sciences; (d) foundations of education; (e) research; (f) advanced technologies; and (g) ethical principles of the profession (p. 92). In brief, despite a passing bow to developing "reflective thinkers" (p. 92), the AASA Model is only marginally a new alternative.

The Maryland MPDA (Sanders, 1987, pp. 99-114)

If the AASA Model is an example of hard functionalism, the MPDA model is soft functionalism. The goal of the program is "behavioral change" (p. 110), and it is change shaped by the external world—initially the Maryland SEA which sets "statewide standards for programs and professional practice" (p. 101). Operationally, behavioral change is defined as "skill building," and the specification of skills is derived in the applied science sense from "the effective schools research [which] can be translated into consequent staff development behavior" (p. 102).

References to skill building are pervasive in the text, for example, "Results of fiscal 1983s survey of MPDA institutes indicated over 50% of the participants in institutes attempted to implement action plans which involved skill building" (p. 104). The reason for this emphasis is clear. Sanders (1987) writes, "The academy's ultimate concern is for results, or impact: what kinds of differences the training is engendering back at the school setting or district level" (p. 104); and again:

> Throughout the description of Maryland Professional Development Academy, the measurable elements of skill development and the in-school changes which result from it have been emphasized, and with good reason. That, after all, is what the public expects to see in educational improvement and what it pays for (p. 113).

Those sentiments are understandable, common, and entirely consistent with a functionalist ideology. Schools and school districts are independent realities organized to achieve defined goals. Administrators are instrumental problem solvers in the means-end chain, and the more skillful they are, the more their "impact" will be felt. Thus a causal relationship between administrator behavior and organizational goal achievement is established.

The North Carolina Leadership Institute for Principals (NCLIP) (Grier,1987, pp. 115-127)

Administration as the enactment of technical rationality is also dominant in the NCLIP. The initial quotation establishes that perspective: ". . . we must quickly begin to help principals develop and maintain the skills necessary to carry out their job effectively" (p. 115). The emphasis on skill building is elaborated upon in the "rationale:"

1. During the next five years, building principals will be expected to implement innovative practices in curriculum, staff development, staff patterns, and evaluation.

2. Principals will have training in procedures to implement innovations so that maximum benefits may be derived from these innovations. . . . (p. 120)

Statements such as these clearly indicate a functionalist bent toward organizations and administration. This perspective is reflected in the knowledge base in use—"research, theory, and the best educational practice" (p. 121). Moreover, such knowledge is generalized. As Grier writes of the North Carolina Business/Industry Liaison program, "Educators can participate in corporate staff development activities that are generic in nature and are designed to assist administrators in strengthening their

supervisory, administrative, leadership, communication, or interpersonal skills" (p. 123). In brief, there is a science of administration which, if mastered, can lead to proficiency in task accomplishment.

Peer-Assisted Leadership (PAL) (Barnett, 1987, pp. 131-149)

Barnett's description of PAL demonstrates better than most the difficulties encountered in breaking from the established positivist, functionalist, applied social science tradition, and moving to a more phenomenological, interpretive, constructionist stance. Statements like the following clearly indicate the latter:

> We do *not* recommend the specific skills that principals must incorporate to become more effective. (p. 136)
>
> Shadows and reflective interviews assist principals in making judgments about how they want to alter their own actions. (p. 136)
>
> [A goal of the program is to] form a collegial support system in which new ideas and insights are shared and change is nurtured and supported. (p. 135)
>
> Reflection, therefore, can be a powerful tool for helping principals deal with the ambiguities and uncertainties inherent in their roles as administrators (pp. 136-137).

Shaking the tenets of tradition is extremely hard to do. They creep in, for example, in the behaviorism and press for value neutrality in the reflective interviews: "Principals are urged to collect behavioral accounts . . ."; "we teach principals to use neutral language . . ." (p. 137). Tradition appears as well in the applied science framework implicit in the Joyce and Showers model of "effective training" (Barnett, p. 140). Tradition is clearly present in PAL's derivation from the universalistic "literature on school effectiveness and leadership" (p. 131) rather than on any "intersubjective particularism" (Miklos, 1986, p. 21). In brief, like APEX, PAL is a complex ideational mix.

The Harvard Principals' Center (Levine, Barth, & Haskins, 1987, pp. 150-163)

Levine et al., exemplify better than most the press toward a new paradigm for administrator training. They write of the Harvard Principals' Center:

> The logic is not complicated; if we can devise ways to help principals reflect thoughtfully and systematically upon the work they do, analyze that work, clarify their thinking through spoken and written articulation, and engage in conversations with others about that work, they will better understand their complex schools, the tasks confronting them, and their own style as leaders. We are learning that understanding practice is the single most important precondition for improving practice. (p. 160)

In this statement, the "intersubjective particularism" identified by Miklos (1986) as characteristic of the interpretive paradigm is expressed.

What sets the Levine et al. description of the Harvard Principals' Center apart from the other alternatives listed in *Approaches* is not anchorage in adult learning theory, in focus upon "reflection" [Hoyle (1987), for example, also advocates that], or upon the use of a "craft paradigm," but upon its general freedom from the tenets of positivism and functionalism. Only occasionally does that language system intrude, for example, in the statement that the Center attempts to "model collegiality, collaboration, efficient management, and effective leadership" (p. 151). Moreover, the authors are aware of the tensions inherent between structuralist and interpretive paradigms as they consider the proper mode of evaluating the Center's work, a tension reflected in the press for a "research design" intended to establish "links between a principal's behavior in a workshop and his or her behavior in a school" (p. 151) and the "richness to be mined from the stories and experiences of the [Center's] members" (p. 157). The evaluation issue is resolved by keeping a foot in both camps. Thus, the mix of philosophic stands evident in APEX and PAL is present here as well.

The Institute of Educational Administration in Australia (Moyle & Andrews, 1987, pp. 164-181)

From the developmental history of the Institute as described by Moyle and Andrews, one senses strongly the attempt to construct the Australian version of the One Best Model. The authors cite from Shear's 1974 proposal for a "Residential Administrative Training Institute," noting that after a date to be determined, satisfactory performance at the Institute or approved institutions of administrator training would be a pre-requisite for appointment as a deputy or vice principal" (p. 168). Subsequently, the "stages" of the "planning model" described are similar to the theory to practicum sequence of the One Best Model. Equally, so is the curriculum. Moyle and Andrews (1987) write:

> The content of these initial residential programs varied, but they all "were planned to concentrate on two inter-related and interlocking components—the study of educational leadership and of the major task areas in which *educational leaders* must daily engage. In the study of leadership, participants are introduced to leadership concepts wherein such themes as leadership, organizational leadership theory, systems theory, social systems theory, role theory, values theory, small group theory, and communication theory are examined."
>
> The task areas included the administration of curriculum, supervision and staff development, school-community relations, the politics of education, multiculturalism, industrial relations, and student and staff administration. (pp.170-171)

All of this sounds remarkably like the discipline-based content of the One Best Model. Other similarities are present in the description of teaching methodologies and staff selection. Finally, the research design chosen to evaluate the program was clearly in the positivist tradition with respect to pre- and post-tests, instrumentation (e.g., the LBDQ), and focus upon "cognitive, affective, and psychomotor changes in IEA participants . . ." (p. 177). Thus, while acknowledging staff attempts to incorporate "the theoretical underpinnings of adult education" (p. 169) in the activity structure of the program, the basic philosophic orientation is clearly functionalist.

Facilitating /I/D/E/A/ Principals' Collegial Support Groups (La Plant, 1987, pp. 182-200)

The key to understanding the /I/D/E/A/ alternative is contained in La Plant's statement, "The Principals' Inservice Program attempts to walk a fine line between andragogy and pedagogy" (p. 100). Andragogy is best associated with interpretive paradigms, at least insofar as the press for growth is internal. Pedagogy reflects an external press, frequently in the direction of mastering "essential competencies." What is awkward philosophically is walking that fine line between divergent orientations.

Both orientations are present. The functionalist stance is introduced first in the I/D/E/A/ conclusion that "something had to be done for principals" (p. 182). It continues in the expressed goals of the program, that is, "to help principals improve their professional competencies so that they can, in turn, improve school programs for children" (p. 184). Moreover, "the focus in this program is on clarifying the principal's role in planning, communicating, training for implementation, coordinating, and evaluating" (p. 186). In the training process, "attention is directed toward assisting principals design, implement, and evaluate a school improvement project" (p. 186). All of this suggests an unrelieved functionalist view of administration, technical rationality, and perhaps a new POSDCoRB.

The interpretive orientation is also present in PIP. Again La Plant writes, "The model succeeds when participants engage in the activities, look back at activities critically, abstract some useful insight from their analysis, and put the results to work in subsequent activities" (p. 187). Here the constructionist stance toward administration dominates.

Central to the PIP alternative is the collegial support group. Such groups were designed "to establish a climate that was conducive to sharing and giving assistance while maintaining individual autonomy and responsibility" (p. 197). Here the intent is clearly interpretive in the sharing of meaning, in the facilitation of the involvement of others, and, in general, the creation of a social context.

Lewis and Clark College's Summer Institute for Beginning School Administrators (Duke, 1987, pp. 201-212)

The alternative described by Duke is unique among those included in *Approaches*: (a) a pre-service program designed for students who, for the most part, have not held administrative positions (p. 211); (b) "survival training for new administrators" (p. 203) rather than professional growth and development; and (c) a complementary and essential part of a larger administrator certification program.

Not surprisingly, dominant structuralist perspective pervades the Institute. The key program descriptors are "tips" and "how to," and do's and don'ts of school administration. The sharing of craft knowledge acquired through experience characterized the bulk of the Institute's proceedings. Only at the close of the Institute was attention shifted from survival skills to "what it might mean to becomean administrator" (p. 209), and in that sense acquired a belated interpretive cast.

Research, Practice, and Conceptual Models: Underpinnings of a Principals' Institute (Peterson, pp. 213-219)

To the extent that the AASA model re-affirms the "One Best Model," Peterson's alternative re-affirms the legacy of the Theory Movement. To paraphrase Cooper and Boyd (1987, pp. 16-19), it represents the Better Theory Movement.

The goal of the Institute is "to prepare practitioner-scholars" (Peterson, p. 220). The Institute is "research-based [and] theoretically driven" (p. 213). The underlying beliefs are (a) that "Research is a central way of improving the decision making and leadership of principals . . ."; (b) that "Theories and conceptual models . . . provide alternative ways of viewing and understanding the intricacies of practice"; and (c) that the practitioner has the responsibility to "actively transform knowledge and theory into usable form while on the job" (p. 216). The "legacy of the theory movement" (Crowson & McPherson, 1987, pp. 45-64) endures.

The Better Theory Movement approach is clearly functionalist in orientation. Even a cursory examination of the model in relation to Miklos' (1986) four dimensions makes this apparent. Schools, for example, are "complex organizations [shades of Etzioni] with sets of political, social, and administrative actors whose values, norms, intentions, and goals differ" (p. 218); principals are "managers of schools" (p. 218) who "structure, manage, lead, and direct streams of resources, tasks, people, and symbolic systems in an effort to achieve what they believe to be the potential of their organizations" (p. 219); "skills and practical wisdom, therefore, must be

generalizable to multiple settings" (p. 214), and so on. Only in the inclusion of "symbolic frameworks" (p. 218) in the set of theories-in-use does the approach vary from that of the Theory Movement. Hence the generalization that the Principals' Institute described by Peterson stands squarely in the applied social science tradition dominant in educational administration since the 1950s.

The Australian Administrative Staff College: The Syndicate Method (Walker, 1987, pp. 230-242)

The title of Walker's paper is most revealing. The thrust of the discussion is indeed on method—its origin, its definition, and its operation. Once beyond that, newness vanishes. The Staff College offers an "Advanced Management Program," a "Management Development Program" and a "Senior Management Program" for "executives" drawn from both the "private and public sectors . . . from banking, manufacturing, mining, retailing, and insurance, from welfare organizations, and state and federal government departments . . . from the police, parliament, the trade unions, universities, and the school system" (p. 235). In this "management is management" environment, the formal curriculum for the Advanced Management Program includes such traditional offerings as industrial relations, marketing, and human resource management (p. 238). In brief, the alternative described is, in the old tradition, a not altogether surprising finding given that one of the early advocates of "a staff college for industry" (p. 232) was Colonel L. Urwick.

Summary

Three generalizations are offered in summary of the brief analysis carried out in Part II. First, for none of the alternatives proposed were the root ontological, epistemological and axiological assumptions explicitly attended to. Thus, to use the language of the law, circumstantial evidence, always inferential, was utilized in attempting to determine what those assumptions were.

Second, of the eleven alternatives recorded, seven were judged to be firmly lodged in the dominant functionalist/realist/applied social science tradition and only four in an alternative interpretive/idealist/experiential tradition. To use Schön's terminology, models of technical rationality, or perhaps more accurately, variations on the model of technical rationality, were predominant in *Approaches*. Alternatives within both traditions varied widely among themselves in the degree to which they strictly adhered to the basic assumptions embedded in their respective orientations.

As a third and related generalization, none of the alternatives proposed could be classified in either the radical structuralist or the radical humanist tradition. Given the recent debates in educational administration, such omissions are highly conspicuous.

III. Generating Alternatives

How does one account for the relative difficulty in generating genuine alternatives to the predominant modes of administrator training? The explanations are probably more numerous than can be articulated here, but four are offered. They are: (a) the nature of the environment; (b) the nature of administration; (c) the nature of the language of training; and (d) the nature of a paradigm.

The Nature of the Environment

In his 1966 American Council on Education address, William Arrowsmith said, "At present the universities are as uncongenial to teaching as the Mojave Desert to a clutch of Druid priests" (cited in Ebel, 1970, p. 1). Analogously, the environment of schools today is uncongenial to all except functionalist conceptions. The criticisms of schools as reflected in multiple national reports and the view of schools as instruments of national economic policy have combined to discourage interpretive and radical conceptions of schools and incumbent roles. The triumphs and failures of technical rationality dominate life in the United States. Thus, to return to Arrowsmith, alternative administrator training programs are as unlikely as Druids in the Mojave.

The Nature of Administration

As James March (1978), that acute observer of schools wrote:

> Much of the job of an educational administrator involves the mundane work of making a bureaucracy work. It is filled with activities quite distant from those implied by a conception of administration as heroic leadership. It profits from elementary competence (p. 233).

In brief, March recognized, as did most of the writers in *Approaches*, that instrumental problem solving occupies much of the school administrator's attention, that "elementary competence" is required, and that focus upon skill development is appropriate in training programs. At issue is the degree to which "survival skills" or "competencies" should be incorporated into programs, and the salience given to them. Those issues are more easily resolved within structural/functionalist frameworks than within others.

The Nature of the Language

Early in their concluding chapter, Murphy and Hallinger (1987) state, "We are well aware of current efforts to distinguish training from professional development and education. However, we believe that training serves as a reasonable term for the analysis presented in Part II" (p. 246). Murphy and Hallinger are quite right, but in quite unexpected ways. Models based upon positivist/functionalist/applied science orientations are indeed training models.

Training. The word slides easily off the tongue. It is used professionally—teacher training, nurses training, administrator training; it is used in the language of every day life—to train children, plants, and pets. The term was used throughout this paper. It should not have been used so indiscriminately.

Conceptually, training is a form of teaching. But as Green (1968) argues, training excludes "asking questions, weighing evidence and, in short, demanding and receiving a justification of rules, principles, or claims of fact" (p. 31). Training as a conception of teaching is totally consistent with the acquisition of skills (competencies) necessary to perform instrumentally in the "real" world of technocratic rationality. Words are symbols; "training" is a symbol. Thus the contention that the use of a term uniquely appropriate to a functionalist/structuralist world view is, in itself, an impediment to the creation of alternatives.

The Nature of Paradigms

As defined by Kuhn (1970), "A paradigm is what the members of a scientific community share, *and*, conversely, a scientific community consists of men who share a paradigm" (p. 176). What is shared is a perspective, an orientation, a language system, and a means of addressing "puzzle-solutions" (p. 175). Paradigms are powerful, incomplete, and taken for granted. Thus paradigms are at one and the same time enormously helpful, problematic, and dangerous.

Focus upon taken-for-grantedness and its implications. Kuhn writes, "When the individual scientist can take a paradigm for granted, he need no longer, in his major works, attempt to build his field anew, starting from first principles and justifying the use of each concept introduced" (pp. 19-21). Applying this to the present case, and assuming agreement on the paradigmatic dominance of structuralism/functionalism in educational administration, two puzzles are at lest partially unravelled. First, the absence of any discussion of "first principles" (which are equated here with fundamental, ontological, epistemological, and axiological presuppositions) in the

presentation of the alternative described in *Approaches* is explained. Second, the absence of any expectation to attend to "first principles" in professional discourse produces a mind set uncongenial to the generation of genuine alternatives. Scientific revolutions are rare events. Thus variation rather than creation should be anticipated. This is precisely what is reflected in *Approaches*.

In sum, *Approaches to Administrative Training in Education* projects an image of a dynamic field in "reflective conversation" (Morgan, 1983, p. 406) with itself. Each of the alternatives presented is in its own right, a creative attempt to address a significant problem. Astley (1985, p. 511) observed that:

> The real significance of research lies not in the mechanical collecting and reporting of data, but in the opportunity to extend scientific imagination by developing new modes of thinking and interpretation.

Clearly, the alternatives presented in *Approaches* extend the imagination and evidence new modes of thought. That is enough.

REFERENCES

Aoki, T. (1979). *Toward curriculum inquiry in a new key.* Unpublished occasional paper #2, University of Alberta, Department of Secondary Education, Edmonton, Canada.

Astley, W. G. (1985). Administrative science as socially constructed truth. *Administrative Science Quarterly, 30*(4), 479-513.

Barnett, B. G. (1987). Peer-assisted leadership: peer observations and feedback as catalysts for professional growth. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp.131-149). Albany: State University of New York Press.

Blumer, H. (1962). Society as symbolic interation. In A. Rose (Ed.), *Human behavior and social processes* (pp. 179-192). Boston: Houghton-Mifflin.

Bossert, S. T. (1988). School effects. In N. Boyan (Ed.), *Handbook of research on educational administration* (pp. 341-352). New York: Longman.

Burrell, G. & Morgan, G. (1979). *Sociological paradigm and organisational analysis: Elements of the sociology of corporate life.* London: Heinman.

Cooper, B. S. & Boyd, W. L. (1987). The evolution of training for school administrators. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 3-27). Albany: State University of New York Press.

Crowson, R. L. & McPherson, R. B. (1987). The legacy of the theory movement: Learning from the new tradition. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 45-64). Albany: State University of New York Press.

Duke, D. (1987). Lewis & Clark College's Summer institute for beginning school administrators. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 201-212). Albany: State University of New York Press.

Ebel, K. E. (1970). *The recognition and evaluation of teaching*. (Project to Improve College Teaching). Salt Lake City, UT.

Firestone, W. (1987). Meaning in method: The rhetoric of quantitative and qualitative research. *Educational Researcher, 16*(7), 16-21.

Green, T. (1968). A typology of the teaching concept. In C. J. B. Macmillan (Ed.), *Concepts of teaching: Philosophical essays* (pp. 28-62). Chicago: Rand-McNally.

Grier, L. (1987). The North Carolina Leadership Institute for Principals. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp.115-130). Albany: State University of New York Press.

Griffiths, D. E., Stout, R. T. & Forsyth, P. B. (Eds.). (1988). *Leaders for America's schools*. Berkeley, CA: McCutchan.

Hoyle, J. R. (1987). The AASA model for preparing school leaders. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 83-98). Albany: State University of New York Press.

Kuhn, T. (1970). *The structure of scientific revolutions* (2nd ed.). Chicago: University of Chicago Press.

LaPlant, J. C. (1987). Facilitating /I/D/E/A/ principal collegial support groups as a means of professional development and school improvement. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp.182-200). Albany: State University of New York Press.

Levine, S. L., Barth, R. S., & Haskins, K. W. (1987). The Harvard Principals' Center: School leaders as adult leaders. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 150-163). Albany: State University of New York Press.

Magoon, A. (1977). Constructivist approaches in educational research. *Review of Educational Research, 47*(4), 651-693.

March, J. (1978, February). American public school administration: A short analysis. *School Review, 86*, 217-250.

McKay, M. (1988). Educational research and the nature of science. *The Educational Forum, 52*(4), 353-362.

Miklos, E. (1986, April). *Reflections on educating educational administrators.* Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco.

Morgan, G. (1983). In research, as in conversation, we meet ourselves. In G. Morgan (Ed.), *Beyond method: Strategies for social research* (pp. 405-407). Beverly Hills, CA: Sage.

Moyle, C. & Andrews, K. (1987). The Institute of Educational Administrations in Australia. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 164-181). Albany: State University of New York Press

Murphy, J., & Hallinger, P. (Eds.). (1987). *Approaches to administrative training in education.* Albany: State University of New York Press.

National Commission on Excellence in Educational Administration. (1987). *Leaders for America's schools (A National Report).* Tempe, AZ: The University Council for Educational Administration.

Peterson, K. (1987). Research, practice, and conceptual models: Underpinning of a principals' institute. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 213-219). Albany: State University of New York Press.

Pitner, N. (1988). The study of administrator effects and effectiveness. In N. Boyan (Ed.), *Handbook of research on educational administration* (pp. 99-122). New York: Longman.

Sanders, A. S., (1987). Maryland's MPDA: The professional development academy and its odyssey in comprehensive training. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 83-98). Albany: State University of New York Press.

Schön, D. (1983). *The reflective practitioner.* New York: Basic Books.

Schön, D. (1987). *Educating the reflective practitioner.* San Francisco: Jossey Bass.

Sergiovanni, T. (1985). Landscapes, mindscapes, and reflective practice in supervision. *Journal of Curriculum and Supervision, 1*(1), 5-17.

Silver, P. F. (1987). The Center for Advancing Principalship Excellence (APEX): *An approach to professionalizing educational administration.* In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 67-82). Albany: State University of New York Press.

Smith, J. (1983). Quantitative versus qualitative research: An attempt to clarify the issue. *Educational Researcher, 12*(3), 6-13.

Smith, J., & Heshusius, L. (1986). Closing down the conversation: The end of the quantitative-qualitative debate. *Educational Researcher, 15*(1), 4-13.

Soltis, J. (1984). On the nature of educational research. *Educational Researcher, 13*(10), 5-10.

Stake, R. E. (1967). Toward a technology for evaluation of educational programs. *AERA Monograph Series on Curriculum Evaluation, 1*, 1-12.

Tyack, D., & Hansot, E. (1982). *Managers of virtue: Public school leadership in America, 1920-1980.* New York: Basic Books.

Walker, W. G. (1987). The Australian Administrative Staff College: The syndicate method. In J. Murphy & P. Hallinger (Eds.), *Approaches to administrative training in education* (pp. 230-242). Albany: State University of New York Press.

Chapter 4

Exploring the Effects of Computer-Mediated Work on Educational Organizations

Muriel Mackett, Frederick Frank, and Peter Abrams

The power of information technology as an organizational intervention transforms countless work places across the nation and in other countries. Far more than just technical intervention, information technology mediates work environments and thereby changes the nature of work and the overall character of the organization. The power of technology as intervention is deeply rooted (Zuboff, 1988, p. 388; see also McClintock, 1988; McCorduck, 1985):

> History reveals the power of certain technological innovations to transform the mental life of an era—the feelings, sensibilities, perceptions, expectations, assumptions, and, above all, possibilities that define a community. From the social influence of the medieval castle, to the coming of the printed book, to the social and physical upheaval associated with the rise of the automobile — each specific example serves to drive home a similar message. An important technological innovation is not usefully thought of as a unitary cause eliciting a series of discrete effects. Instead, it can be seen as an alteration of the material horizon of our world with transformative implications for both the contours and interior texture of our lives. Technology makes the world a new place....

Research on the organizational effects of information technology and computer-mediated work environments has focused predominately on business settings rather than education, due primarily to the far greater

speed of development, sophistication, and application of information technology in the business sector (Kinzer, Sherwood, & Bransford, 1986; Taylor & Johnson, 1986). Relatively little related research has been done in educational settings. Nonetheless, the effects of information technology on schools, universities, and other educational agencies are pervasive and hold considerable potential for understanding and managing educational organizations as workplaces (Culbertson & Cunningham, 1986).

Three major topics are discussed: (1) the power of information technology as an organizational intervention in school workplaces; (2) computer mediation of schools as workplaces and effects on the relationship between knowledge and power; and (3) implications of technological intervention and the effects of computer-mediated work environments for the field of educational administration.

The Power of Information Technology As An Organizational Intervention in School Workplaces

The power of information technology as an organizational intervention in school workplaces is most readily observable in the capacity of the technology to support the operation of comprehensive, integrated, and elaborated computer-based educational information systems off electronically manipulable data bases, *with educational leaders as end users.* This is a revolutionary capability which offers unprecedented opportunities for school leaders to define and access rich information pertinent to fostering student learning, improving curriculum and instruction, and restructuring schools (Bank & Williams, 1987). Research, development, evaluation, and theory-building efforts of a new order can also be more easily built into the ongoing performance capability of educational leaders, working individually or with colleagues or technology experts (Bowers, 1988).

Perspectives on the power of information technology for schools as workplaces are informed by four central ideas: (1) The effects of the technology are profound. (2) The effects are unavoidable. (3) The presence and effects of the technology command organizational attention and response. (4) Technology and its effects should therefore be reflected in study and practice in educational administration:

1. The presence and application of information technology in schools constitutes a fundamental intervention which has profound impact on the school organization. Applications of information technology produce new computer-mediated school work environments, environments in which the very nature of work is affected by the presence of the technology. Further, application of the technology produces change in the kinds and relative

amounts of oral and written information about schools that is available to educators, who in the school hierarchy has access to information, who may use information for what purposes, and the outcome of information use. All of these changes work together to produce shifts in ownership of school knowledge within and across formal and informal roles and in who has power of knowledge. Thus information technology alters relationships between knowledge and power and such organizational domains as hierarchy, authority, responsibility, control, and influence.

2. Given the power of the technology, the effects of computer-mediated work environments on the school organization are not only profound but unavoidable. This is the case even though the effects may be moderated in some ways by the choices that people make about how they go about their work in the presence of the technology. School workplaces are affected regardless of whether technology is pervasive in a school or a minimal presence—regardless of whether technology is used according to a comprehensive master plan or in response to specific problems—regardless of whether the people involved perceive technology as a driving force or as simply an aid to the work of the school—and regardless of the competence and commitment of school computer users.

3. Given the power of the technology and the inevitability of some organizational effects, a central task for educational administrators is to respond in whatever productive ways possible to the possible mediating effects of information technology on the school work environment. How best to respond as a matter of policy or in specific situations are questions demanding continued investigation and learning in the field.

4. Given all three of these ideas, any examination of the potential effects of the technology on the workplace will inevitably intersect with, and bring into question, major domains of theory, research, and practice in the field of educational administration. Potential effects of computer-mediated work in fact appear potentially so profound that information technology must be seen as representing, along with craft wisdom and theory and research, a new generative source to inform educational administration as a field of study and practice (Mackett, Frank, Abrams, and Nowakowski, 1988). Information technology and its implications for education should command the fullest attention of the field for theory development, research, practice, and administrator preparation.

Ultimately, the power of information technology as an organizational intervention must surely depend on how, how well, and to what ends, issues which surround it are negotiated in education. But perhaps the most central issue has to do with how educational administrators can come to understand

the implications of the technology when—in an area of thought and practice which is relatively new in educational administration—students, practitioners, and professors share neither a common knowledge base nor a common base of experience in information technology. Clearly, educational administrators are limited in knowledge of the effects of computer-mediated work and in their capabilities, or perhaps their inclinations, to subject these effects to systematic inquiry. The pace of change made possible for education by information technology intensifies the demands on educational administrators to adapt.

The Computer-Mediated School Workplace: Knowledge and Power on a Collision Course?

When information technology is present in schools—and particularly when use of the technology permits electronic manipulation and sharing of information by leaders and other end users—the very nature of work, conditions of work, who does what work, what skills are necessary and valued in the workplace, and the nature and relationship between knowledge and power all come into question. Information technology is changing who in the hierarchy has access to knowledge in schools and inducing shifts in the school knowledge-power equation. Knowledge and power may thus be set on a "collision course" (Zuboff, 1988, p. 310). As the power of information technology grows, and applications in education progress, these changes will accelerate and their effects become more pervasive and complex. Two perspectives may be helpful in examining the computer-mediated school workplace: computer-mediated control of information and consequent organizational dilemmas.

Computer-Mediated Information Control

The maxim that "knowledge—or information—is power" clearly operates in schools. Control of knowledge is equated with power, position in the school hierarchy, authority, responsibility, control, and influence. One's control of knowledge is also associated with having the necessary expertise to function in a professional role and for being accountable for carrying out assigned responsibilities. The dynamics of information control in school workplaces, however, are changing with the application of information technology.

In spite of the traditionally held notion that schools are awash in a sea of paper, schools actually run on an oral culture rather than on a written one. Oral knowledge of schools is pervasive and potent. It provides the basis for most internal and external communication. It reflects and defines the school

cultures through which people perceive their roles and relationships, their responsibilities, their rights and duties, and the appropriateness of their behavior. It provides the most organizational continuity over time. It serves as an important vehicle for expressing professional expertise, for being perceived by others as competent, and for evidencing accountability. And, oral knowledge is dynamic, subject to multiple interpretations at any one point in time and to change over time.

As a field, we have much to learn about the extent to which control of oral knowledge of schools is possible or desirable. School personnel, however, do actively attempt to control school information, including that which is written. It is essential to distinguish between non-machine, automated, and informating modes of control of written information in order to consider the power of information technology for schools (Zuboff, 1988, pp. 9-11; see also Miller, 1988; Pogrow, 1985; and Richards, 1989).

Non-machine or "paper" information control is still common in every school and incorporates virtually all aspects of school and district operation. Manual systems that include student records, personnel records, and inventory information are examples of non-machine school information control. Non-machine control certainly impacts the organization in numerous ways but, unless directly tied to computer use, does not by itself ordinarily engender change in ownership of information or in school knowledge-power equations.

Automated information control occurs with great frequency in schools, typically and primarily as an extension of the "paper" mode. Work which might otherwise be done by hand is more efficiently accomplished by machine with little change in intent or outcome. Essentially the same work is done, but faster, in greater quantity, and with greater accuracy. An example of automated information control is moving a manual system of student records, personnel records, and inventory information into a computer-managed system, typically containing discrete files for the student, personnel, and inventory data. Automation tends to be computer-based but still does not tap the full power of information technology or necessarily engender significant change in ownership of school information or in knowledge-power equations.

"Informating" information control involves use of information technology in ways that commit information essential to running schools to school and district electronic information systems. Automating is a necessary but insufficient condition of informating; automating must also be conceived and operated so that informating can occur. By design and application, the system is accessible by an increased number of people in

different roles who are in some way involved in school decisions, or impacted by them. Information systems become in essence what Zuboff (p. 179) refers to as "electronic texts" of schools which incorporate their "operating intelligence." *With informating, schools can not only accomplish work differently; they can accomplish different work.* In contrast to an automated system, an informating information system would include more categories of data, more data in each category, and the capability to integrate data across categories. Informating changes the way people can participate in and react to the stream of organizational events, the oral and written school cultures that are continually shaped and communicated, ownership of school information, and school knowledge-power equations. Thus "informating" is of an entirely different order and import than either non-machine (paper) or automated modes of control of written school information.

Of the three modes of control of written school information, informating is clearly at the core of the computer-mediated school workplace and would not be possible in the absence of information technology. There is, in fact, little evidence that schools are deliberately attempting to informate and some have not yet automated. Yet there are many efforts under way in schools to establish comprehensive information systems which, deliberately or inadvertently, incorporate some concepts, processes, and outcomes of informating. Three implications merit further examination:

1. Regardless of whether schools deliberately attempt to informate, as long as there are computers in schools, some informating will occur, by default if not by design. Schools cannot avoid the impact of this technological intervention. The line between automating and informating modes of information control may be very fine. Whether, how, when, and by whom this line is crossed may not be predictable, may not be immediately recognizable to those involved when it occurs, and may not be controllable through any standard organizational or administrative means, if at all. Deliberate attempts to informate—to create and apply electronic texts of schools—have two chief intents:

- To incorporate information that is sufficient in scope, content, and meaning to expand teachers' and administrators' (and others') understandings of how schools function and to increase their capacities to run schools effectively. The overriding concern is not with completing discrete tasks, as is frequently associated with automated information control, but with focusing information, energy, and resources on enriching student learning and improving learning outcomes.
- To centralize and codify essential knowledge of a school or district, some of which might otherwise be embedded only in the oral culture and accessible (if at all) only as a function of one's position in the hierarchy. The electronic text lets essential information be accessed, interacted with, and applied to student learning by people in different positions at different levels of the school hierarchy—superintendents and central office staff, principals or middle managers, teachers and other professional staff, and support staff at all levels.

An electronic text created through informating processes certainly will never reflect all of the dimensions of knowledge which surround a single school or the collection of schools in a district. Neither will it capture the essence of school culture or how it is expressed orally or in all written aspects. Deliberate attempts to informate could be expected to produce the richest electronic texts. But even without the intent to informate, some form of informating will occur and some form of school text will still be produced serendipitously, by the spontaneous, often isolated acts of individual people using school computers. Thus schools that have some form of automated information control may be thought of as on the path of becoming "informating school cultures."

2. The concept of informating in some sense incorporates "information-liberating" as well as "information-controlling" dimensions since it presumes that information will, by design and circumstance, flow relatively freely across organizational roles and lines. Indeed, informating presumes the need for and the efficacy of shared, or "liberated," information across the hierarchy as a condition of organizational effectiveness. This presumption gives informating the power to engender profound change in who in the hierarchy—what people in what roles—do and should own school information. If indeed knowledge is power, then this presumption also signifies the power of informating to engender fundamental restructuring of knowledge-power equations in school hierarchies.

In an informating context, "instructional" *and* "curricular" *and* "administrative" information, for example, are no longer presumed *a priori* as discrete or separate territories reserved for or circumscribed by one's position in the school hierarchy (teacher, administrator, or other). Information which otherwise may have been privately held by different individuals as a function of their organizational roles is, with informating, more easily made public across the hierarchy as part of the electronic school text created in the informating process. Superintendents, principals, and teachers all have the potential to access information which might not be available to them at all—and certainly would not be available systematically—in either the oral culture or through the non-machine or the automated modes of control of school information.

Whether informating occurs deliberately and by design or serendipitously, informating processes thus change what is known about schools and the means by which knowledge is obtained and communicated. As a school information system—or electronic school text—is produced, the sources and modes of expression of knowledge of the school shift from oral to "textualized" and a secondary oral culture shaped around the computer information system begins to emerge. This new, more data-based, oral expression of organizational knowledge may eventually supplant the original oral culture of the school and signify new organizational meaning codified with new organizational symbols.

3. Given the pervasiveness of some form of informating in the presence of information technology and the capacity for informating processes to liberate and change school information (implications one and two), informating modes of information control must be seen as at the core of the computer-mediated school workplace. The following propositions summarize and bring focus to critical dimensions of informating school cultures and computer-mediated school workplaces:

- The greater the intent to informate (or the greater the occurrence of informating regardless of intent), the greater the shift to new textualized written and oral school cultures.
- The richer the new written and more data-based oral cultures, the richer the potential for generation of questions and discourse about the educational process that are more specifically informed by more detailed knowledge of the school.
- The greater the access to the information base across hierarchical lines, thegreater the potential that questions and discourse—and problem sensing and problem solving—will transcend those lines.
- The more new information paths incorporated into the culture flow across the organizational hierarchy, the more working relationships become transformed, creating fundamentally altered work environments in schools.
- The greater the computer-mediated transformation of the school workplace, the more fluid and dynamic the relationship between knowledge and power.

Technology and computer-mediated work create new dynamics which place new parameters on power as a function of knowledge. As Zuboff (1988, p. 310) suggests, "*The informating process sets knowledge and authority [power] on a collision course. In the absence of a strategy to synthesize their force, neither can emerge a clear victor, but neither can emerge unscathed.*" Computer-mediated information control plays what seems to be a causal role in unleashing the forces of collision. Because the technology makes new information available, it may create the imperative to examine old questions anew and to ask new questions which educational administrators might not yet be ready to address. It may therefore be at the heart of synthesizing strategies to manage the forces of collision productively.

Organizational Dilemmas in the Computer-Mediated Workplace

Not surprisingly, the shifting dynamics of knowledge and power in the context of informating modes of control of information in school work-

places present important organizational dilemmas. Perhaps the most critical dilemma concerns the question of how to manage productively the forces unleashed by new knowledge-power equations flowing from application of information technology in school workplaces. Three related dilemmas warrant attention:

1. All informating school cultures will challenge the efficacy of traditional administrative roles, regardless of the extent to which schools consciously intend to informate as a goal or consequence of creating school information systems. The very act of creating any electronic information system, the ease of its availability to staff members, the likelihood that school staff will incorporate the information they access as an essential part of their ongoing work, and the inevitability that some shifts in ownership of school information will result—all will in some way challenge traditional administrative roles. Just as administrators cannot fully control informating processes in schools, neither can they fully control shifts in knowledge and power created by information technology and computer-mediated work.

Thus in considering how to productively manage new knowledge-power equations in schools, educational leaders need to attend to several contingencies. Chief among these may be the choices that people in the school organization perceive that they have—and are able or willing to make—in dealing with information technology and with the realities of redistribution of knowledge across hierarchical lines that occur as a consequence of informating.

Quite irrespective of administrator preferences or efforts to control choices, people at all levels of the hierarchy can make at least some choices about how they interact with information technology and can find some means to give expression to their own professional needs and agendas. However, people's choices—whether they be of a more functional or dysfunctional character—are of course value-laden and subject to a number of organizational contingencies, some of which may be subject to administrative mediation or control. The context in which people may pursue choices is therefore important for administrators to understand.

With the intervention of information technology, people at all levels of the hierarchy have the opportunity to center more of their work life around information. Depending on individual choices as well as organizational pressures, superintendents and principals—not just computer experts or data processing staff members—may become involved in, and in fact provide leadership for using information technology for educational purposes. Teachers, other professional staff, and particularly support staff may become involved as well. For informating processes to thrive, significant attention must be given to establishing operating procedures, defining data

to be included in the information system, assuring that data are entered and accessible, ensuring the integrity of the data, accessing and interacting with data, interpreting and communicating about the data, designing and implementing data-based interventions, and applying the data to the essential educational functions of the school.

Each of these junctures present many opportunities for choice to be exercised on the part of all staff. Depending on individual and collective choices made, shifts may begin to occur in, for example, perceptions of what constitutes "administrative," "supervisory," "instructional," and "support" work. Shifts may also occur in expectations for job performance, working relationships, sources of satisfaction, and senses of work time, work space, and work location. Learning to perform computer work and to use information technology productively requires tremendous commitment of time and energy and a great deal of collaborative work. Above all, and perhaps of greatest import to administrators, information technology precipitates transformation of the adult structures of schools into adult learning environments. And, administrators are among the learners in terms of the technology itself and how it can be used productively. Furthermore, administrators are not necessarily the central source of organizational knowledge, information, or expertise.

All of these contingencies will test administrators' abilities to meet challenges, caused by informating, to their traditional roles. They also will test administrators' abilities to deal with redistribution of knowledge across hierarchical lines, shifts in the organizational locus of knowledge and power, and concomitant shifts in organizational hierarchy, authority, responsibility, control, and influence.

2. Just as informating school cultures will tend to challenge the efficacy of traditional administrative roles, they also will provide new sources of organizational knowledge and power. Concepts which are helpful in understanding this organizational dilemma are offered by Zuboff (1988, pp. 322-324): "panoptic power" and "organizational transparency" or "transparency of work."

In essence, "panoptic power" means that when work is computer-mediated and informating processes are occurring, the electronic text that is created allows administrators (and others who access the system) to "observe" the organization and people's work performance indirectly, without needing to be either part of the sweep of events or physically present at the time of occurrence. "Organizational transparency" and "transparency of work" mean that the electronic text reveals information not otherwise observable about the organization and about people's work which can be used to supervise and evaluate programs and staff, plan organizational interventions, and deal with issues of organizational knowledge and power.

To elaborate, as the electronic text or information system of the school is generated and used through the informating process, many elements of the organization and people's work become part of the electronic text of the school. Thus aspects of the organization and of people's work becomes visible (transparent) and subject to supervision and evaluation off the electronic text of the school (panoptic power). With the electronic text, work that would otherwise have been examined and supervised only through other means *and* work not typically scrutinized or evaluated directly (if at all) become subject not only to close examination but also to intervention or directed action of some kind. For example, supervision and evaluation of teacher performance may be impacted by information in the system that facilitates comparative scrutiny, teacher by teacher, within a given year or over time, of student achievement expectancy scores in mathematics, or some other subject area. Principal and superintendent performance can be scrutinized in comparable ways appropriate to their responsibilities. In general, the scope, nature, quality, speed, accuracy, and substance of work become more visible and can be evaluated and responded to differently in the context of school information systems.

An additional key dimension of information technology as an organizational intervention is the notion of a "real-time data base" in the information system (Gooler, 1986; Zuboff, 1988). In the school context, a real-time data base would require that teachers and students be routinely "on-line" as part of the delivery and evaluation of the instructional process. The electronic text of the organization would thus be expanded and performance would be subject to scrutiny—by teachers and administrators—on a real-time basis or with minimum time delay. While far from a reality in schools, real-time data bases are commonplace in the business sector and could be incorporated into schooling (Frank, Mackett, Nowakowski, & Abrams, 1986; Gooler, 1986).

As suggested above, informating, panoptic power, organizational transparency, transparency of work, and the potential for the electronic text or operating intelligence of the school to incorporate real-time data bases constitute new sources of organizational knowledge and power. They also have profound implications for the professional roles and responsibilities of school superintendents, principals, teachers, other professional staff, and support staff. Further, they help us to understand that information technology has the capacity, simultaneously, to challenge the efficacy of traditional administrative roles and, through its inherent panoptic powers, to produce powerful supervisory and evaluative tools which may reinforce administrative authority.

The panoptic powers of information technology may tend to mediate the effects of technology on the knowledge-power equation and support the

legitimacy of traditional administrative authority. But it seems equally possible, and perhaps more likely, that traditional lines of power and authority tied to ownership of information will become more fluid with every step that schools take, planned or otherwise, into the world of the computer-mediated workplace. The character of the school workplace is being reshaped and will continue to be so as information technology becomes more powerful and as use of the technology progresses. Just how this reshaping unfolds depends on many factors. The choices made and the directions taken to actively govern this reshaping process will impact not only the schools as workplaces but the quality of schooling. Clearly, the domains of knowledge, power, authority, responsibility, control, and influence need to be examined anew in the context of information technology.

3. The dynamics of the workplace in informating schools have bearing on how to define the knowledge and skills needed to administer these schools effectively. Unfortunately, traditional frameworks for conceptualizing what constitutes effective school administration do not take into account either the substance of work with information technology or the challenges to the administrative role which the technology has the capacity to produce. As noted earlier, the capabilities of information technology to support the operation of comprehensive, integrated, and very elaborated computer-based educational information systems off electronically manipulable data bases are revolutionary. Frameworks for conceptualizing and determining administrative effectiveness may need to be equally revolutionary.

At this juncture, the processes of informating and of dealing with the effects of computer-mediated work demand that administrators evidence knowledge of the substance of schooling processes and learning outcomes and be able to bring that knowledge to bear on the development of school information systems. They must evidence conceptual and analytic skills and be able to apply those skills to understanding the content and meaning of data in the system. They must evidence the capability to engage in questioning of information in the system as a means to sense school problems and be able to work collaboratively with others to formulate and test data-based solutions to problems. They must evidence the ability to negotiate ambiguities surrounding administrative knowledge, power, and authority and provide leadership for the informating school in the context of those ambiguities. They must be competent end users and they must be school leaders, not just in accomplishing school work differently but in accomplishing different school work.

There are unquestionably commonalities between the meaning of administrative effectiveness in this context and as represented in other literature (see for example Boyan, 1988). However, there are clear differences as well—differences which reflect imperatives which derive from the

application of information technology in schools. Frameworks for conceptualizing and specifying administrative competence need to be developed which incorporate information technology and computer-mediated work as part of the thinking, language, and symbols of educational administration as a field of study and practice. Concepts of informating schools, electronic texts and operating intelligence, panoptic power, organizational transparency and transparency of work, and real-time data bases should be central to the development process. The implications of information technology for knowledge, power, authority, responsibility, control, and influence in schools should be central as well. Surely educational administrators must question whether knowledge and power are indeed on a collision course in schools and how to interpret and respond to that possibility.

Computer-Mediated School Workplaces and The Field of Educational Administration

In the presence of information technology, work in schools and the school workplace will continue to change. Information technology is producing new patterns of organizational life in schools and presenting new opportunities to improve schooling (Mackett, Frank, & Abrams, 1988). The collective choices that are made by educators and leaders outside of education about how to respond proactively to these opportunities will, for good or ill, play an important role in shaping the future of the educational enterprise (Frank, Mackett, & Abrams, 1988; Mackett, Frank, Abrams, & Nowakowski, 1988). Choices that are made with respect to continued developments in those domains which define the field of educational administration—theory, research, practice, and administrator preparation—will be particularly significant (Hanneman, 1988).

As described here, information technology, as have other major technologies before it, brings into question many of the theoretical and conceptual underpinnings of the field of educational administration, its research base, the nature of practice, and the content and delivery of administrator preparation programs (Mackett, Frank, Abrams, & Nowakowski, 1986). The four central ideas and the observations in this paper provide a framework for considering a number of important questions which need to be investigated for the knowledge base of the field to be advanced. For example:

1. Concerning the idea that the effects of the technology are profound: Why does the presence of computer technology constitute such an important intervention in schools? How does technological intervention produce new computer-mediated work environments? What is the character of these environments? Are there patterns in the effects of computer-mediated work

environments by, school type, student achievement, or some other variables of interest?

2. Concerning the idea that effects of the technology are unavoidable: Why are effects of technology unavoidable? Why is the technology accepted or even embraced by some while rejected or resisted by others? In what ways might the choices which people make about the technology moderate effects on the school organization of computer-mediated environments? What kinds of effects are produced by the exercise of different choices and can choices and any effects be controlled?

3. Concerning the idea that the presence and effects of the technology command organizational attention and response: How can educators plan for productive use of information technology in the school workplace? By what standards might we judge productivity? What kinds of responses might be productive for different situations? How can leaders learn about the technology and assure that they and others use it productively? How should administrative practices be modified to respond most productively to the opportunities for school improvement that information technology affords?

4. Concerning the idea that technology and its effects should be reflected in study and practice in educational administration: In what ways might theory, research, and practice in educational administration be called into question? How can the claim that information technology represents a new generative source to inform the field of educational administration be supported? How can theory be developed to address the nature and implications of the impacts of technology? What kinds of related research questions should be investigated to develop the knowledge base of the field? What should be the content of administrator preparation programs for pre-service and in-service administrators? What kinds of professional development opportunities would be appropriate for professors of educational administration?

The power of information technology as an organizational intervention and the effects of computer-mediated work, as described here, provide new and essential contexts for considering and responding to these basic questions. The perspectives presented suggest that responses which take information technology into account will differ in fundamental ways from those which do not. Furthermore, the perspectives presented suggest that those differences in responses would demark information technology, along with craft wisdom and theory, as a new generative source to inform educational administration as a field of study and practice.

Questions posed herein about theory, research, practice, and administrator preparation and responses to those questions which derive from different perspectives should command the full attention of the field. Perspectives which derive from the field of information technology and which take into account the effects of computer-mediated work should play an important

role in our collective responses. Educational administrators must proceed with the shared understanding that information technology makes the school world, the world of education, a new place.

NOTES

Shoshana Zuboff's seminal 1988 work, *In the Age of the Smart Machine: The Future of Work and Power* has made a significant contribution to the field. The authors are indebted to Professor Zuboff for her work and the influence it has had on their own.

AUTHOR NOTES

The authors are faculty members in the College of Education, Northern Illinois University. Muriel Mackett and Frederick Frank are Professors of Educational Administration. Peter Abrams is Professor of Educational Psychology. An earlier version of this paper was presented at the authors' "Symposium on the Future of Work and Power in Informating Schools." University Council for Educational Administration Annual Convention. University of Cincinnati, Ohio. October, 1988.

REFERENCES

Bank, A., & Williams, R. (Eds.). (1987). *Information systems and school improvement: Inventing the future*. New York: Teachers College Press.

Bowers, A. (1988). *The cultural dimensions of educational computing: Understanding the non-neutrality of technology*. New York: Teachers College Press.

Boyan, N.J. (Ed.). (1988). *Handbook of research on educational administration*. New York: Longman.

Culbertson, J.A., & Cunningham, L. L. (Eds.). (1986). *Microcomputers and education*. Eighty-fifth Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press.

Frank, F., Mackett, M., & Abrams, P. (1988). Microcomputer-based information systems and management of student achievement: A description of a working model. *The Journal of Information Resources Management 1 (2)*, 37-55.

Frank, F., Mackett, M., Nowakowski, J., & Abrams, P. (1986). Implications of the education utility for educational administration and management. In D. Gooler, *The education utility: The power to revitalize education and society.* Englewood Cliffs, NJ: Education Technology.

Gooler, D. (1986). *The education utility: The power to revitalize education and society.* Englewood Cliffs, NJ: Education Technology.

Hanneman, R. (1988). *Computer assisted theory building: Modeling dynamic social systems.* Newbury Park, CA: SAGE.

Kinzer, C., Sherwood, R., & Bransford, J. (1986). *Computer strategies for education: Foundations and content-area applications.* Columbus, OH: Merrill.

Mackett, M., Frank, F., & Abrams, P. (1988). Educational information systems: A resource for educational management. *The Journal of Information Resources Management 1 (2),* 2-28.

Mackett, M., Frank, F., Abrams, P. & Nowakowski, J. (1986). Preparing educational administrators for effective application of the education utility. In D. Gooler, *The education utility: The power to revitalize education and society.* Englewood Cliffs, NJ: Education Technology.

Mackett, M., Frank, F., Abrams, P., & Nowakowski, J. (1988). Computers and education: Policy implications for educational administration. In D. Griffiths, R. Stout, & P. Forsyth (Eds.), *Better leaders for better schools: The report and papers of the National Commission on Excellence in Educational Administration.* San Francisco: McCutchan.

McClintock, R. O. (Ed.). (1988). *Computing and education: The second frontier.* New York: Teachers College Press.

McCorduck, P. (1985). *The universal machine: Confessions of a technological optimist.* New York: McGraw-Hill.

Miller, H. (1988). *An administrator's manual for the use of microcomputers in the schools.* Englewood Cliffs, NJ: Prentice Hall.

Pogrow, S. (1985). *Computer decisions for board members: Getting the most from what your district selects.* Washington, DC: Teach'em, Inc., and National School Boards Association.

Richards, C. (1989). *Microcomputer applications for strategic management in education: A case study approach*. New York: Longman.

Taylor, W.D., & Johnson, J.B. (1986). Resisting technological momentum. In J.A. Culbertson & L.L. Cunningham, (Eds.), *Microcomputers and education*. Eighty fifth Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press.

Zuboff, S. (1988). *In the age of the smart machine: The future of work and power*. New York: Basic Books.

ISSN: 1-55996-146-5
ISSN: 1041-3502